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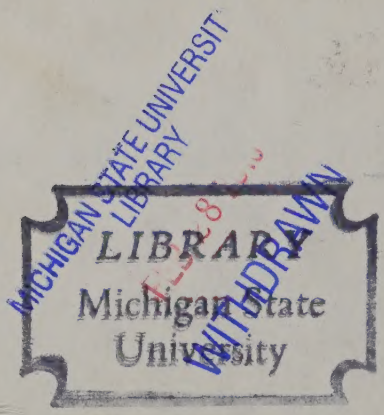
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Student Personnel Work
at
Northwestern University

STUDENT PERSONNEL WORK AT NORTHWESTERN UNIVERSITY

BY

ESTHER McD. LLOYD-JONES, PH.D.

WITH A FOREWORD BY

WALTER DILL SCOTT

PRESIDENT OF
NORTHWESTERN UNIVERSITY

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FOREWORD

Personnel work is the systematic consideration of the individual, for the sake of the individual, and by specialists in that field. As thus defined, personnel work is in the main a modern achievement.

Consideration of the individual in a crude form is as old as the human race. But the human body could be adequately observed and understood only after physiology and the allied sciences had been developed; and human behavior could be adequately observed and understood only after psychology and all the social sciences had been developed.

The mother's attention to her child has always been exclusively for the sake of the child. Something akin to a mother's love has frequently manifested itself in all forms of human relationship. However, the individual has commonly been regarded not primarily as an end in himself, but rather as a means to an end. A slave was one who rendered service to his master; an employee one who earned a profit for his employer; a customer one who might be exploited for the profit of the house; a soldier one who might be sacrificed for the glory of his commander; and a child might even be considered as a support for his parents in their declining years. Only in a democracy, in a period of prosperity, and in an age of high ethical idealism are the conditions favorable to the consideration of an individual for the sake of the individual.

A child is greatly affected by every person and every occurrence in his environment. The most recent infants of the twentieth century A.D. are probably in no way superior to the infants of the twentieth century B.C., but the adults of today are greatly superior to their direct ancestors of forty centuries ago. Much of this superiority is attained during the period from infancy to the en-

65447

trance upon a regular vocation. Human nature is infinitely complex and is affected by innumerable influences. Among these great importance must be assigned to parents, companions, teachers, and spiritual advisers; to the printed page, health regulations, sports, recreations; and to all other forms of formal and informal education. Chance and accident would probably bring the individual under as many injurious as beneficial influences. No one adult alone is sufficient to act as the guide and the companion of any youth. This is a generation of experts and the best interests of each youth require that he should be served by experts in each of the fields necessary for his highest development. The personnel department of a university is an organized group of experts who devote themselves to the interests of the students and who are in a position to provide that each student shall be served by numerous other experts whenever occasion demands.

Progress in any field of human endeavor is dependent upon the discovery of new or the refinement of old methods of observing the forces and conditions involved. Progress in personnel is dependent upon the discovery of new or the refinement of old methods for the observation of the individual and his environment. The study by Mrs. Esther McDonald Lloyd-Jones gives special emphasis to the presentation of new methods or the refinement of old methods for observing the individual and his environment. She not only presents in detail the method used in these refinements of methods of observation, but she gives typical results that have been thus secured. In the table of contents of this study reference is made to such observations under such headings as: Studies of Individual Differences—Attempts to Discover Objective Criteria upon Which to Base Selection—Studies of the Relationship between High School and College Scholastic Standing—Correlations between Intelligence Tests and Scholastic Standing in College—Procedure Followed in Interviewing Program on the Evanston Campus—Vocational Objectives—Physical Health—Social Adjustments—Mental Attitudes—Comparison of Probation,

Average and Superior Scholarship Groups—Mental Alertness—Family Factors—High School Factors—College Factors—Furtherance-Hindrance Factors—Extra-Curricula Activities—Combinations of Factors Handicapping Scholastic Success—Effect of Student Self-support on Scholarship—Studies of Motivation—Clark's Work with Student Graphic Ratings—Studies of Time Distribution—Experiments in Sectioning—Stack's Survey of Religious Agencies and Activities of the University—Survey of the Intellectual Life and Activities of the Campus—Attempt to Evaluate Class-room Teaching—Adequate System of Records.

An educational institution is assumed to organize all its departments for the sake of the individual students. Every requirement and every opportunity provided finds its justification in the contribution it makes for the development of the youth. Theoretically nothing in an educational institution is an end in itself, but everything is there for the sake of the student. The professor of Greek is in danger of regarding his task to instruct in Greek rather than to increase the student's appreciation for another civilization and to refine the use of his native tongue. The director of physical education is in danger of regarding his task to win games rather than to inculcate a democratic spirit and to develop better physical organisms. The disciplinary committee is in danger of regarding its task to demand justice and to uphold rules and regulations rather than to develop in the student body a sense of honor and an appreciation for conformity to the regulations of organized society. This study by Mrs. Lloyd-Jones indicates steps that have been taken to cause all factors of the University to function for the sake of the student. The following headings taken from the Table of Contents are illustrative of this phase of her presentation: Hopkins' Survey Concerned Not with Means and Methods, but Rather with Point of View—Personal Counseling—Efforts toward Furthering the All-around Development of the Individual Student—Dormitory Counselors—Faculty Advisors—Cases of Insufficient or Incorrect Academic Advising—Social Adjustments—Making

Facilities of University Available to Student—Value of the Interviewing Program—Effort Made to Give Treatment Before Cases Reach Crises.

The present is an age of extraordinary specialization. Each department of learning is likely to be pigeonholed and out of relationship with other fields of knowledge with which coöperation would be most desirable. In general the administration and faculty of a university are composed of groups of experts. Each is adjudged by his competence and devotion within his own narrow confines. In this study of Mrs. Lloyd-Jones's there are presented instances of attempts made to cause the knowledge and skill that could be provided by these experts to function coöperatively. In the Table of Contents the following refer to such coöperation by experts whose services are valuable in the development of youth: Coördinating Agencies Concerned in Personnel Work—Coördination of Specialists' Data and Their Efforts Necessary—Faculty Advisers—The Staff—Physical Health—Students Put in Touch with Practitioners in Vocational Fields—Vocational Information Solicited for Students from Business Concerns by Letter—Impetus Received from Army and Industrial Personnel Activities—Cooperation with Vocational Agencies Outside the University—Coöperation between the Health Department and the Personnel Office.

Personnel work is not only new, but it is very important. Parents, teachers, and employers are particularly interested in every account of any forward step in this entire field. This presentation by Mrs. Lloyd-Jones is a distinct contribution and will be much appreciated. Its chief charm is in its concreteness, its definiteness, and its clarity.

WALTER DILL SCOTT

January 11, 1929

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The author's main debt of gratitude is to President L. B. Hopkins of Wabash College under whose stimulating guidance as Director of Personnel at Northwestern University the writer first obtained a conception of the possibilities of personnel work in modern education.

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ESTHER LLOYD-JONES

Teachers College
Columbia University
May, 1929

CONTENTS

FOREWORD v
ACKNOWLEDGMENTS ix

Part One

ORGANIZATION OF PERSONNEL WORK

I. INTRODUCTION 3
Factors in the Evolution of Educational Personnel Work—Definite Beginning of Personnel Work; Cattell's Work at Columbia in 1894—President Harper's Ideal as Expressed in 1905—The Work of Marshall and Kitson at the University of Chicago—Impetus Received from Army and Industrial Personnel Activities—Personnel Department Instituted at Northwestern University by President Scott—General Survey Made of Personnel Work in Fourteen Institutions in 1926—Hopkins' Survey Concerned Not with Means and Methods But Rather with Point of View—Present Survey Concerned with Means and Methods, as Well as Point of View, in One Institution.

II. PERSONNEL PROBLEMS AT NORTHWESTERN UNIVERSITY 10
Selection of Students—"The Freshman Problem"—Coördination of Elements of Personnel Service—Personal Counseling—An Adequate System of Records—The Vocational Problem—Part-time Employment and Placement of Graduates—Mental Hygiene—Needed Surveys of Conditions Within the Institution—Studies of Individual Differences—Coördinating Agencies Concerned in Personnel Work.

III. How Northwestern University Organized Its Personnel Department 18

The Place of the Personnel Department in the Existent University Organization—Principles Underlying the Work of the Office—Internal Organization of the Office—How the Work of the Office Is Supplemented—The Scope of the Work of the Department Thus Far—The Cost of the Personnel Office.

Part Two

PERSONNEL SERVICE

IV. Selection of Students 27

Ten Methods of Admission to College in Use Throughout the Country—Former Bases of Admissions at Northwestern—General Assumptions Underlying the Research on a Selective Basis of Admission—Composition of Student Body Apparently Fairly Constant Under Old Admissions Policy—An Analysis Showing the Fate of 695 Students of the Class of 1923—A Similar Analysis for the Class of 1925—A Comparison of the Figures for the Men and Women of the Class of 1925—The Selective Program Finds Its Initial Focus in the Third of the Total Entrants Who Drop Out of College Entirely.

V. Selection of Students (*Continued*) 41

A Further Analysis of the Classes of 1923 and 1925—Students of "C" Grade or Above Do Not Abandon Their Educational Plans in Very Great Numbers—Attempts to Discover Objective Criteria Upon Which to Base Selection—Studies of the Relationship Between High School and College Scholastic Standing—Correlation Between Intelligence Tests and Scholastic Standing in College—Attempt to Discover Critical Scores on Tests in High School Standing—Relationship Between Academic Success in High School and College

Is High in General but Differs with Different High Schools—Legislation with Regard to Selection Based on Research Results—Present Admissions Policy—What of Those Students in Good Scholastic Standing Who Drop Out?

VI. Assisting the Student to Adjust Himself to College 65

Description of Admission Procedure—Admission Blanks—Procedure in Selecting the Desired Number of Qualified Freshmen—Provisions for Taking Tests Earlier than Freshman Week—Description of 1927 Freshman Week Activities; Entrance Tests—Cost of Testing Program—Registration—System of Freshman Advisors—Other Activities of Freshman Week—Orientation Courses for Freshmen Not Yet Established—Freshmen Dealt With as Individuals.

VII. Coördinating Information Concerning the Student 72

Efforts Toward Furthering the All-around Development of the Individual Student—Coördinating of Specialists' Efforts and Data Necessary—Now Organized into Significant Relationships by the Personnel Office —The Use of Cumulative Records for Every Student —Use of the Information Contained in the Summary Record—Other Methods for Coördinating Personnel Service and Research.

VIII. Counseling Agencies 79

Senior Members of Student Groups—Big Sisters—Dormitory Counselors—Faculty Advisors—Cases of Insufficient or Incorrect Academic Advising—Deans and Their Assistants—Special Interviewing Staff in the Personnel Department.

IX. The Counseling Service of the Personnel Department 87

The Staff—The Scope of the Work—Program for Interviews on Evanston Campus During First Semester 1927-28—Extension of Work to Chicago Campus—

Procedure Followed in Interviewing Program on the Evanston Campus—Time Distribution; Educational Progress; Outside Work and Finances—Vocational Objectives—Summer Work—Physical Health; Social Adjustments—Mental Attitude—Interviewer Alert to Sense Critical Areas—Makes Facilities of University Available to Student—Interviewer's Post-interview Report—Examples of Difficulties Frequently Discovered in Ordinary Interviews—Policies Maintained Regarding the Interview—Value of the Interviewing Program.

X. Vocational Counseling and Placement 109

Vocational Information Needed—Students Put in Touch With Practitioners in Vocational Fields—Vocational Conferences—Vocational Information Solicited for Students from Business Concerns by Letter—Cooperation with Vocational Agencies Outside the University—Vocational Library—Bulletin Prepared by Office which Presents Pre-professional Programs of Study in Convenient Form—Pre-professional Groups Organized—Survey Showing Range of Vocational Interest Among Men in Liberal Arts and Commerce—No Vocational Tests Used—Placement Work; Survey of Placement Agencies in 1924—Coördination of Placement Agencies Through Director of Personnel—Policies Underlying Placement Work—Placement Work Done Directly by Personnel Office for Senior Men in Liberal Arts and the Evanston School of Commerce—More Placement Work Needed for Women in College—Part-time Employment.

XI. Mental Hygiene 123

Coöperation Between Health Department and Personnel Office—Health in the Student Interviews—Freshman Lectures on Mental Hygiene—Mental Hygiene in the Student Interviews—How Problem Cases Come to the Office—Examples of Mental Hygiene Cases—Effort Made to Give Treatment Before Cases Reach Crises.

Part Three

PERSONNEL RESEARCH

XII. Research: A Function of the Personnel Department 139

Holbrook's Study—Comparison of Probation, Average, and Superior Scholarship Groups—Ages of Groups—Mental Alertness—Is Mental Alertness the Best Predictive Measure?—Family Factors—High School Factors—College Factors—Furtherance-Hindrance Factors—Extra-curricular Activities—Study—Outside Work—Vocational Preference—Combinations of Factors Handicapping Scholastic Success—Comparison of Probation Students and Class of 1926—Effect of Student Self-support on Scholarship—Studies of Motivation—The "Twenty-first" Club—A Special Study of Eighteen Students—Clark's Work with Student Graphic Ratings—Studies of Time Distribution—Statistics Concerning Student Self-support—Cases of Students Who Are Partially or Entirely Self-supporting—A Study of the Objectivity of the Interview—A Study of the Value of Interviewer's Eestimates.

XIII. Personnel Research as an Aid in College Administration 180

Pre-professional Requirements for Commerce Students—Grades of Forty-nine Students in Liberal Arts and Commerce—Comparison of Men's and Women's Grades—Studies of "Majors"—Comparison of School of Speech Students with Students in Liberal Arts—A Survey of Certain Students Taking Psychology—Experiments in Sectioning—A Study by Mrs. Schreurs of the Relation of Certain Factors to Success Achieved in the Study of Freshman English and Mathematics—Miss Stack's Survey of the Religious Agencies and Activities of the University—Survey of Intellectual Life and Activities of the Campus—Selection of Faculty Members—Attempt to Evaluate Classroom Teaching.

Part Four

SUMMARY

XIV. Conclusion 207

APPENDIXES

Appendix A 219
Appendix B 235
Appendix C 238
Appendix D 246

TABLES, FIGURES AND DIAGRAMS

Table

I. Geographic Distribution of Students During a Ten-Year Period 30

II. Registration Analysis Through Ten-Year Period..... 31

III. Liberal Arts Class of 1923..... 33

IV. Class of 1925..... 37

V. Class of 1925 (Men and Women)..... 39

VI. Comparison Between Quartile Standings of Students in High School and College..... 46

VII. Distribution of the Combined Grades of the Classes of 1925 and 1926 on the Basis of H. S. Quarter and M. A. Quarter..... 51

VIII. First Semester Averages of Various Age Groups in Liberal Arts 57

IX. Occupations Mentioned in the Vocational Choices of Men of Class of 1926—Liberal Arts..... 112

X. Occupations Mentioned in the Vocational Choices of the Men of the Class of 1924—Commerce..... 113

XI. Analysis of the Letter to Seniors of 1924-25..... 120

XII. Comparison of Probation, Average, and Superior Groups 140

XIII. Handicaps of the Superior, Average and Probation Groups 162

XIV. Handicaps of the Superior, Average and Probation Groups 163

XV. Comparison Between Freshmen of the Class of 1926 (Probation Students Omitted) and Probation Students of All Classes..... 164

Table

XVI. Extent of Self-support of the Class of 1927 165

XVII. Data Concerning the Twenty-First Club of September, 1923 166

XVIII. Data Concerning the 21 Freshman Students Making the Highest Scholastic Averages 167

XIX. Time Distribution for the Men of the Class of 1927 During Their Freshman Year 173

XX. Proportion of Expenses Earned During the Year 1923-24 by the Men of the Classes Indicated 175

XXI. Comparative Averages of Certain Groups of Commerce Students of the Class of 1926 181

XXII. Grades Made by 49 Students in Liberal Arts and Commerce 181

XXIII. Point Averages of the 49 Students by Semesters 18

XXIV. Study of Majors for the Class of 1923 18

XXV. Majors of Candidates for Degrees (Showing Distribution by Departments, 1914 to 1919) 18

XXVI. Majors of Candidates for Degrees (Showing Distribution by Departments, 1919 to 1923) 18

XXVII. Majors of Candidates for Degrees in 1924 (Distribution by Departments for Men and for Women) 18

XXVIII. Distribution of Majors of 1925 Graduates (Men and Women) 18

XXIX. Personnel Data for Students in the School of Speech 19

XXX. Additional Data of the School of Speech 19

XXXI. Results of Sectioning in English Department 19

Figure

1. What Became of the 695 Students Who Entered Liberal Arts as Freshmen in 1919-20 .....

2. What Became of the 628 Men and Women Who Entered Liberal Arts as Freshmen in 1921-22 .....

Figure

3. What Became of the 312 Men Who Entered Liberal Arts as Freshmen in 1921-22 38

4. The Distribution of Point Averages for Various Groups Leaving the Class of 1923 42

5. The Proportion of Students Leaving the Class of 1925 During the First Three Semesters 43

6. The Distribution of Point Averages of College Students Grouped According to Their Quartile Standing in High School and in the Mental Alertness Test Score 50

7. The Relative College Scholarship of the Various High School Groups 53

8. The Percentages of Each Group of Point Averages Made by Students of Different Ages when Entering College 57

9. A Comparison of the Distribution of Mental Alertness Scores of the Probation Groups and the Freshmen (Class of 1927) 150

10. A Comparison of the Distribution of Mental Alertness Scores for the Average Group and the Liberal Arts Class of 1927 151

11. A Comparison of the Distribution of Mental Alertness Scores for the Superior Group and the Liberal Arts Class of 1927 151

12. Total Hours, Total Points, and Point Average of the 30 Commerce Students, Class of 1924, Who Did the Four Semesters of Pre-commerce Work in Northwestern University College of Liberal Arts 184

13. Total Hours, Total Points, and Point Average of 113 Members of the Liberal Arts Class of 1923 Who Were in Northwestern University College of Liberal Arts for Eight Consecutive Semesters 184

14. Comparisons of the Point Averages Made in Major Subjects with All Work Done by Various Groups of the 162 Students Who Entered and Graduated with the Class of 1923 187

Diagram

I. Personnel Office at Northwestern University 18

II. Organization Plan for the Health Program on the Evanston Campus 122

III. Plan of Organization of a College or a University Showing the Place of the Department of Personnel 208

PART ONE

Organization of Personnel Work

Chapter One

INTRODUCTION

Factors in the Evolution of Educational Personnel Work.—A comprehensive history of the various ideas that have gradually evolved and finally merged in educational personnel work would lead far back into the past. It would necessitate a careful tracing out of the changes in philosophy that have directly contributed to the personnel idea; it would require a recognition of the influence of certain great personalities fundamentally interested in people as individuals; the influence of co-education and its accompanying introduction of the Dean of Women as a special personnel officer; the contribution which scientific education and psychology and statistics have made; the influence of the Great War in hastening the practical application of psychology; the contributions of industrial personnel work to personnel work in education; the suggestions psychopathology has had to offer; the crisis brought about by the increasing numbers of students desiring entrance to colleges and universities; even changes in theology that have allowed of a new interpretation of discipline.[1]

It is not the purpose of this chapter to do more than touch upon certain of the more important and definite stages in the development of personnel work in colleges. It is desired here merely to sketch a background for the presentation of the educational personnel work done at one institution in the years 1922 to 1927, inclusive.

Definite Beginning of Personnel Work. Cattell's Work at Columbia in 1894.—As far back as 1894, Cattell instituted at

[1] From unpublished notes by L. B. Hopkins.

Columbia University a plan for testing the students in their first and fourth years. He says in an article published at that time:

> Tests such as we are now making are of value both for the advancement of science and for the information of the student who is tested. It is of importance for science to learn how people differ and on what factors these differences depend. If we can disentangle the complex influences of heredity and environment we may be able to apply our knowledge to guide human development. Then it is well for each of us to know in what way he differs from others. We may thus in some cases correct defects and develop attitudes which we might otherwise neglect.[2]

Though Cattell did not use the results of the tests in actually dealing with students, nevertheless he had the idea, and his results, consisting of norms on tests, furnished a basis for the later developments.[3]

President Harper's Ideal as Expressed in 1905.—Another significant attempt at a scientific study of the college student took place at the University of Chicago beginning about the year 1913. It is described in a monograph by Kitson, published in 1917.[4] Kitson points out in this article that President Harper of the University of Chicago had, more than a decade before, set up an ideal of individualized instruction that, viewed in the light of subsequent development in the field of higher education, has proven truly prophetic. President Harper said in 1905:[5]

> Today the professor's energy is practically exhausted in his study of the subject which he is to present to the student. In the time that is coming, provision must be made, either by the regular instructors

[2] Cattell, J. McK., and Farrand, L., "Physical and Mental Measurements of the Students of Columbia University," *Psychological Review,* Vol. III, 1896, pp. 618-648.

[3] Wissler, Clark, "The Correlation of Mental and Physical Tests," *Columbia University Contributions to Philosophy,* Vol. IX, 1901, pp. 1-4.

[4] Kitson, Harry Dexter, "The Scientific Study of the College Student," *Psychological Review Publications,* 1917.

[5] Harper, William Rainey, *The Trend in Higher Education,* University of Chicago Press, 1905, pp. 32 ff.

or by those appointed especially for the purpose, to study in detail the man or woman to whom instruction is offered. Just as at present, in many institutions, every student upon entrance receives a careful physical examination, for the discovery of possible weaknesses, and for the provision of special corrective exercises . . . so in the future it will be a regular function of the college to make a regular diagnosis of each student.

This will be made (1) with special reference to his character—to find out whether he is responsible, or careless, or shiftless, or perhaps vicious; (2) with special reference likewise to his intellectual capacity—to discover whether he is unusually able, or bright, or average, or slow, or dull; whether he is industrious, or irregular, or lazy; (3) with reference to his special intellectual characteristics—to learn whether he is independent and original, or easily diverted, or rigid; whether he has control of his mind or is given to mind-wandering and to what extent he has power to overcome difficulties; (4) with reference to his special capacities and tastes—to determine whether these are evenly balanced or whether there exists a marked preference for some special subject; whether he prefers those aspects of study which are of the book type or those of a mechanical type or those of a laboratory type; whether his special gift lies along lines of an æsthetic character or those of a literary or scientific or philosophical character; whether his special aptitude, supposing it to be in the literary field, lies in criticism or interpretive or creative work . . . and finally, (5) with reference to the social side of his nature to judge whether he is fond of companionship; whether he is a leader or a follower among his fellows; whether he is a man of affairs or devotes himself exclusively to his studies; the character of his recreations; the way in which he spends his leisure hours; whether he is compelled to work for self-support or for the support of others. . . .

Such a diagnosis, when made, would serve as the basis for the selection of studies. . . .

The data thus gathered will determine the character of the advice given to the student, and of any punishment administered. . . .

This material likewise will determine largely the career of the student. . . .

This feature of twentieth-century college education will come to be regarded as of greatest importance, and fifty years hence will prevail as widely as it is now lacking.

The Work of Marshall and Kitson at the University of Chicago.—Kitson's report presents briefly the various efforts made by Marshall, then dean of the College of Commerce and Administration of the University, to obtain significant information concerning the students of his college. It presents in some detail an experiment which Kitson conducted in the College of Commerce and Administration, an experiment using sixteen psychological tests then available, in which the object of the study was not the tests, but rather the acquisition of more information about the students.

Impetus Received from Army and Industrial Personnel Activities.—During the years of the Great War there were not many evidences of progress in personnel work in the colleges themselves. Immediately upon the close of the war, however, stimulated by developments in technique in army personnel work and in industrial fields,[6] a number of colleges and universities introduced elements of personnel work into their administration policy. Brown University, Columbia University, Dartmouth College, Northwestern University, and many other collegiate institutions gradually undertook a greater or less amount of personnel work.

Personnel Department Instituted at Northwestern University by President Scott.—In 1919, when Walter Dill Scott, who had been active in personnel work in the army during the war, accepted the presidency of Northwestern University, he did so with the understanding that he would be allowed to inaugurate in the University a definite plan of personnel administration which he had formulated. Because of President Scott's interest in the development of a system of educational personnel work, and because other elements in the situation at Northwestern were

[6] Doermann, Henry J., *Orientation of College Freshmen,* Williams & Wilkins Co., 1926, p. 85.

considered favorable, a private foundation, interested in education, undertook part of the support in the launching of an experiment. Beginning with a program of psychological testing in 1919 under the direction of the departments of psychology and education, the work gathered strength, and in 1922 L. B. Hopkins was appointed Director of Personnel for the University, and an office called the "Personnel Office" was opened.

General Survey Made of Personnel Work in Fourteen Institutions in 1926.—In December, 1924, representatives of fourteen universities and colleges gathered in Washington to discuss methods and accomplishments in personnel work in education and to find ways to make it more effective. Under a grant from John D. Rockefeller, Jr.'s, Benevolent Fund, means were provided for a visit by a chosen representative to each of the fourteen institutions. The man chosen to visit these institutions was President L. B. Hopkins of Wabash College, at that time Director of Personnel at Northwestern University. Hopkins' purpose, as approved by the Executive Committee, was "to gain a more intimate knowledge of the types of personnel work being done in these fourteen colleges and universities, how this work fits into the general scheme of education, where it is leading, and, in the minds of those concerned, what most needs doing."[7]

There have been many varying and hazy ideas as to what constitutes educational personnel work.[8] Hopkins' report of his study published under the title "Personnel Procedure in Education" has been a contribution toward a better definition of educational personnel work. He says in the introduction to that report:

> The concept that I have had before me has been that it means work having to do specifically with the individual. In education, one might question how this differs from the concept of education itself. I do not assume that it does differ. However, other factors

[7] Hopkins, L. B., "Personnel Procedure in Education," *Educational Record Supplement,* No. 3, October, 1926, pp. 3-4.

[8] Hopkins, L. B., *op. cit.,* p. 5.

constantly force themselves on the minds of those responsible for administration. In industry, it would be fair to say that management must concern itself with raw materials and output, with buildings and equipment, and with innumerable other items. So also in education, the administration is beset with many serious problems, and certain of these problems become so acute at times that there is danger that they may be met and solved without sufficient consideration for their ultimate effect upon the individual student. One of the functions, therefore, of personnel administration in education is to bring to bear upon any educational problem the point of view which concerns itself primarily with the individual. Thus, in this particular, as in all others, personnel work should remain consistent with the theory and purpose of education by tending constantly to emphasize the problem that underlies all other problems of education; namely, how the institutions may best serve the individual.[9]

Hopkins' Survey Concerned Not with Means and Methods But Rather with Point of View.—It was not the purpose of Hopkins in his report to present means and methods for putting into effect in each educational situation the personnel point of view; he was interested, rather, in the point of view actuating the work in each institution, considering this, rather than the instruments used and the practices adopted, as being of real significance for the purpose of his study.[10]

Present Survey Concerned with Means and Methods, as Well as Point of View, in One Institution.—Interest has been manifested before and since the publication of his report, however, in the ways in which this point of view is being embodied in specific institutions. The present report of educational personnel work done at Northwestern University from 1922 to 1927 inclusive is offered as one response to this interest.

No system of personnel work—no matter how well it may work in one situation—can be carried over bodily into another situation at this elementary stage of development because no two

[9] *Ibid.*, p. 5.
[10] *Ibid.*, p. 8.

colleges or universities are exactly alike. Some institutions may best start their personnel work, for instance, through a system of faculty committees; others under a Dean; still others may have their work directly under the supervision of the president. Northwestern's work has, almost from the beginning, been centered in one office under a special officer of personnel. Dr. Mabelle Blake, Director of Personnel at Smith College, who in 1926 made a survey of personnel work in certain colleges, says, "Northwestern University has undoubtedly the most complete system . . . of personnel work centralized under one officer."[11] Even for situations somewhat dissimilar, however, there may be value in knowing how the centralized method has worked out in one situation.

Northwestern does not claim to have a perfect system of personnel, not even one perfectly adapted to its own situation. It has been thought well at this time, however, to bring together in one survey a report of what has been attempted, the methods that have been used, the results accomplished, and the improved lines of procedure indicated by six years of experiment in an institution that was a pioneer in the field of personnel work and that has provided facilities for it scarcely equaled elsewhere.

[11] Blake, Mabelle B., *Guidance for College Women,* New York, Appleton, 1926, p. 212.

Chapter Two

PERSONNEL PROBLEMS AT NORTHWESTERN UNIVERSITY

Selection of Students.—When the new administration opened at Northwestern in 1920, one of the first problems it faced was how to deal with the greatly increased number of students who desired to enter the institution. Should the University continue to admit every one who presented a certificate of graduation from high school? This seemed impracticable, due to the greatly increased facilities that would be required. Certain of the administrators felt that aside from the problem of financial inability to provide for more students, the time had come to ask how many students the institution could best care for. Whether limitation of enrollment were put into effect from theory or from actual financial necessity, it was quite apparent that policies regarding admission must have attention.

"The Freshman Problem."—The problems of the freshman after he had been admitted to the university were just beginning to be appreciated. He was on the campus for the first time in his life; college was a new experience for him; under cover of his awkward manner or his assumption of poise he was often undergoing important emotional and social experiences, as well as intellectual ones. A great deal might be done to help him avoid some of the mistakes in his trial and error process of adapting himself to this new, complex situation.

Coördination of Elements of Personnel Service.—Another question that came up for consideration was how information about the student could be coördinated in a large and complex institu-

tion. Along with an increased knowledge and a greater interest in the student as an individual, had gradually come a greater number of specialists in the college. There was, for instance, the physician, who examined each entering freshman and then filed away certain information concerning his physical status on a card in a permanent file. Those students in need of medical treatment at the time of examination were called back to the physician's office at a later date for counsel and treatment. The card was always on file for any student who came to the physician's attention later by reason of illness or accident. Nothing had been done toward making the physician's expert opinion of each student effective either in his academic program or in his general college life. This may have been due to the fact that its importance had not been recognized, or because it seemed too large a task.

The secretaries of the Christian Associations, employed that they might direct the religious life of the students on the campus, often knew that certain students were going through serious religious crises. They had no way of correlating with this the fact that the student might require medical attention or that he might be finding his class work too difficult.

Instructors in the classrooms welcomed, on the first day of a new semester, varying-sized groups of students assigned to their sections during the preceding hectic registration period. They delivered to these students series of lectures, interspersed, perhaps, with discussions of subject matter presented by the instructor or read from books outside of class. At the conclusions of the courses they assigned grades according to their subjective estimates of each student's ability and achievement as revealed in discussions and essay-type examinations. Some of the instructors, fortunate in not having a large number of students in their classes, were able to know their students in a friendly way. A few others also came to know their students in a personal way; for there are some real teachers who, no matter how large the numbers of

students they attempt to teach, will always manifest interest in them as individuals. However, many of the instructors often expressed a need for additional information concerning their students which, because of lack of time or training, or poor coördination of facilities, they were not able to gain for themselves.

Much organization had to be done so that the various specialists who came into contact with the student could contribute their information concerning him in such a way that it could be made most effective in his service.

Personal Counseling.—Another problem that the administration faced was the inadequacy of agencies to which students could turn for personal counsel. The Deans, doing all the personal counseling that could be expected of them in view of the many other duties their offices carried, felt that there was need of much more of this sort of individual work. There were always some of the students, at best, whom the Deans did not reach. Historically, deans are associated with disciplinary functions, and some of those students most in need of help will avoid them, fearing their punitive powers.

An Adequate System of Records.—In the personal counseling that the Deans did attempt, they sometimes found themselves handicapped by having insufficient information about the students who came to them for help. One of the Deans gave as her greatest need some place to which she could go for immediate information concerning a student who needed her aid. She said that in her effort to know something about an individual she must send to five or six different places. She felt strongly the need for an office of records under trustworthy and scientific direction, where carefully collected information concerning every student would be available for those qualified by position and experience to use it.

In order to provide for more adequate personal counseling and, at the same time, to provide a further opportunity for the faculty to keep in close touch with the student body, a system of faculty

advisors had been inaugurated some time before. All faculty members were supposed to give some of their time to student advising with regard to courses of study, vocational or professional plans on which the student wished advice, general academic progress, and other personal problems. As a matter of fact, this system did not work out satisfactorily. Some of the men acting as advisers did not like the work; they were not familiar with the rules and sometimes made mistakes in planning students' programs; they knew and cared little about vocations; they were able to give only the most general advice with regard to academic success or failure; and they felt themselves incompetent, by reason of lack of time or interest or ability, to cope with many of the personal problems. The result was that sometimes they did more harm than good, and frequently their advisees never went near them unless it was absolutely necessary in order to get a faculty signature on some card.

The Vocational Problem.—While the Liberal Arts College upheld the value of higher education from a purely cultural point of view, it was coming to realize more and more that, just as it was concerned with students before they came to college, so it could not utterly disregard the fact that its students, after four years of more or less cultural development, went on living, and that this usually involved working for money.

There was a growing recognition of the fact that professional and vocational interests were important in the motivation of students even in the College of Liberal Arts. Some administrators and faculty members sympathized with the senior who was faced with the fact that in a few months he would have to earn a living. Some began to think that it might be well, instead of making the four years of college an end in themselves, to try to tie college up with all life; to utilize in the Liberal Arts subjects all the motivating power that professional and vocational interests might have; to offer to the students whatever sound vocational information was to be had; but to bring students to a

realization that a Liberal Arts education did not give them direct training for vocations.

It was important, then, to discover by some means the vocational interests of each student so that these could be used for whatever value they might have in motivation. There was need for someone to gather together the fragments of vocational information that were available for college men and women, and to make this information easily accessible to each and every student.

Part-time Employment and Placement of Graduates.—Closely associated with the problem of vocational information service for the students, came the question of part-time employment for students and placement of students upon graduation. The University had several placement bureaus in its various professional schools, and bureaus for part-time placement for men and women students in the College of Liberal Arts. There was no coördination existing between these agencies, however. Each bureau set up its own standards and operated as best it could without reference to any of the others.

Mental Hygiene.—Another problem was forcibly brought to the attention of the University about this time: that of anticipating and averting, when possible, those occasional cases of abnormality among the students that often have consequences disastrous to the student's well-being and sometimes to the reputation and good name of the institution. Mental hygiene was beginning to be looked to, not only as a possible means of avoiding such disasters, but also as a means of building up positive mental health in every individual student on the campus, just as the physical health program was broadening and becoming more effective in maintaining a high level of physical well-being.

Mental hygiene might have another use in evolving a new method and point of view that would help administrative officers in handling disciplinary cases. Punishment, as a form of exercise for the faculty, had been pretty well abandoned. Non-social or

anti-social behavior on the part of students, however, was as much indulged in as ever. There was immediate need for whatever assistance could be had from the new understanding of behavior.

Needed Surveys of Conditions Within the Institution.—Another innovation was the proposal to set up within the University an agency that should make a continual survey of the conditions and tendencies within the institution. Why not have within the institution someone whose duty would be that of collecting facts which could be used instead of opinions as guides to policies?

The fact that such a suggestion was possible was due partly to the felt need on the part of the college of such a searching self-analysis, and partly to the fact that the techniques of statistics had evolved to such a point that they could be applied to social data.

Studies of Individual Differences.—Another concept that contributed its part in the evolution of personnel work was that of individual differences. It always had been recognized in a general way that individuals differ. From 1900 on, a great deal had been done in a scientific way toward discovering individual differences among children. The need of discovering how individuals in college differ from one another was beginning to be felt more and more keenly. If the student was the focal point of the educational system, if all method and subject matter in the undergraduate college had to take the individual student as its point of departure, it was necessary to know a great deal about the individual student in a definite way.

It was realized that not until more knowledge had been gained as to how individuals differ from one another, could any very intelligent idea be obtained as to how the good student differed from the poor student, or as to what were the characteristics of the average student. There was no reason to believe that the "naturally brilliant" student should have the same sort of educational diet as the average student. Mass methods in education were going out of style, and it was felt that more information was

needed about the measurements of individual students before individual styles could be evolved for them that would fit more adequately than the old ones.

If a college was designed to modify the thinking and the behavior of individual students primarily through classroom teaching, then along with a better understanding of the individual students there might be room for improvement with regard to curriculum, teaching method, elective systems, even faculty appointments. But how these should be modified and improved was a subject for research and not to be determined merely by opinion.

Coördinating Agencies Concerned in Personnel Work.—It was discovered that many of these problems mentioned in the foregoing had already had an attack made upon them in some department of the University; that high schools could contribute knowledge regarding the individuals whom they sent to the University; that outside agencies had contributions to make that were not to be ignored. But it was further discovered that oftentimes the activities of one department of the University were unknown to another department that might be wanting information along that very line; that there was an unwarrantable breach between high school and college; that there should be more coöperation between such agencies as business and industrial establishments, churches, and the University.

Therefore, although it was not necessary to begin from the foundation with regard to these problems, it was necessary, in order to attack them effectively, to enunciate them more distinctly and to coördinate the efforts that were already being made toward their solution, as well as to adopt new methods of dealing with them.

Chapter Three

HOW NORTHWESTERN UNIVERSITY ORGANIZED ITS PERSONNEL DEPARTMENT

The Place of the Personnel Department in the Existent University Organization.—In the fall of 1922 an office was opened under the name of "The Personnel Office" under the direction of L. B. Hopkins. It was made clear from the start that the work of this office was in no way to supplant work that was being done elsewhere in the University; the Deans continued to do all the work they had done before, as did the other members of the administrative staff; the departments of psychology and education continued with their research work on individual differences and educational methods; the placement offices continued to operate as before.

The Office had a coördinating and supplementary relation to the whole. Its duty was to assist in organizing the work that was already being done so that every one might know about it. If it could, it was to convert those within the University to the idea that the Personnel Office was a place where one might come to find out what other work was being done along the same line. It was to be hoped that the Office would eventually be capable of evaluating the success of the personnel work being undertaken by individuals and departments within the University, and that it would be able to make suggestions that would make all of this work more effective.

The office was organized as a part of the staff of the President. It had a correlative position with that of the Dean of Men, the Dean of Women, the Registrar, etc. It differed from these in that

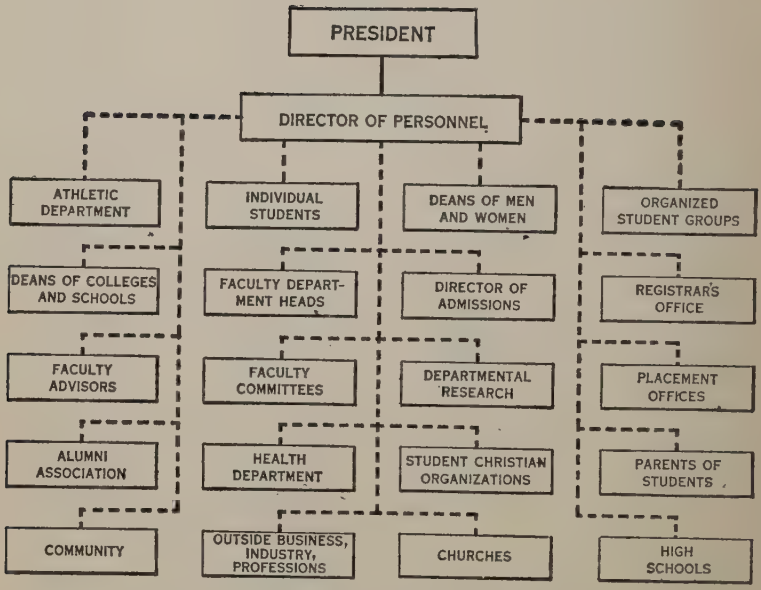


DIAGRAM I

PERSONNEL OFFICE AT NORTHWESTERN UNIVERSITY

The Personnel Office has a staff function in its relation to the President. There is no other authoritative relationship indicated in the diagram; all other relationships which the Personnel Office maintains are entirely on a mutually coöperative basis.

it had no authority to make or enforce any rules. The Director of Personnel, at the time of his appointment, stipulated that he was to have no formal administrative authority. None of the suggestions that he might make was to be adopted except on the basis of its own merit. For, as he said in one of his reports:

> Changes will be made if change is desirable when those in authority agree with the Director of Personnel that the specific change suggested is desirable. In so far as the deans and the faculties are convinced that the personnel program is sound, they will under their own authority proceed with the program. Beyond that point all the authority in the world would not help the Personnel Director, and not infrequently to be possessed of such authority would be an embarrassment. This is just as true in student contacts as it is in administrative and faculty contacts. When a student finds that there is nothing to be gained by coöperating with the Personnel Office, all the authority in the world will not avail to make him keep his contacts with the office; but as soon as he is satisfied that such contacts are worth while, nothing more is needed.

Principles Underlying the Work of the Office.—Hopkins has said in some unpublished notes that there are four things which well-balanced personnel administration involves; these are the principles on which he tried to develop his work at Northwestern:

1. An interest in individuals
2. An appreciation of the methods of science, as opposed to unsupported personal convictions, feelings, or class prejudices
3. Utilization of scientific methods and scientific knowledge in personnel procedure
4. The coördination of the work of all agencies within the institution participating in either personnel service or personnel research or both, so that service and research in the institution may not proceed on divergent paths, but rather work in a reciprocal relationship.

When the office opened in 1922, the staff had three members: Mr. Hopkins, a research assistant, and a secretary-stenographer. The work the first year consisted in research by which future work could be guided, in interviewing men students (mostly freshmen), in coming to know the situation in the University thoroughly, and in laying the foundation for an understanding and promotion of personnel work in every branch of the University.

Internal Organization of the Office.—It soon became necessary to increase the staff and to enlarge the scope of the work so as to serve women as well as men students. The work of the Office since its first year has usually required the full time of eight people.

Hopkins gave his full time to the project, doing no classroom teaching. For the first two years the Director carried on regular scheduled interviews with freshman and sophomore men. Then, although no interviews were regularly scheduled with juniors and seniors, he found that there were so many upper-classmen seeking interviews that he was giving most of the time available for student interviews to these sought-after conferences. In addition to these student interviews, he devoted considerable time to conferring with other personnel officers in the University: to discussions of special problems with Deans, other administrative officers and faculty about curricula, about students who presented special problems, about selection of new instructors, classroom method, examination procedure, and educational experimentation of one kind and another. He spent a great deal of time, also, working with outside agencies which were related to the undergraduate students.

The Director has, as members of his staff, two men assistants serving full time.[1] One of them (a Doctor of Philosophy in psychology) has the chief responsibility for the statistical research

[1] In the fall of 1928 a third man was added to the staff to take charge of all of the part-time employment of students on the Evanston campus.

undertaken by the Office, directs the testing program, is in charge of admissions for the College of Liberal Arts, and holds interviews with undergraduate men students.

The other man in the Office has each year been a graduate of the preceding year whom the Director of Personnel has chosen because he was one of the most outstanding, intelligent and popular men in his class. This young man joins the staff with the distinct understanding that his appointment is for one year only. During this year he spends a great deal of time in personal interviews with undergraduates. He carries on some studies for the Office. He maintains close contacts with the Athletic Department, with fraternities, student publications, the Y.M.C.A., and alumni groups. He is, by virtue of having recently been an outstanding senior, already well-acquainted with student leaders and campus affairs generally. He interprets the opinion of the undergraduate men to the Director and, in general, proves himself a versatile and valuable member of the staff.

Five women have been employed as members of the staff. Since the work was enlarged in 1924 to include women students as well as men in the program of the Office, a young woman has been employed, known as the Assistant Director for Women. This woman was a recent graduate of the University, familiar with all campus activities and traditions. It has been her duty to maintain close contacts with the women undergraduate students as individuals and as groups; to work closely with the Dean of Women, the Counselor for Women, the Women's Physician, and the Y.W.C.A. Secretaries. She has been a member of various outside agencies interested in college women, such as the National Association of Deans of Women and the Chicago Collegiate Bureau of Occupations.

The other women members of the staff, all of them recent and popular graduates of the University, were chosen because of their desirable personal qualifications. Each possesses the ability to meet students well, and each has had special training in

stenography, office management, social case work, record-keeping, or educational research.

In addition to the above eight full-time employees, the staff has had two part-time members. One of these, a clinical psychologist with years of experience in dealing with abnormal cases of children from the lower schools on up, teaches in the psychology department of the University. This man gives considerable time to the regular work of interviewing. In addition to this, he acts as consultant in all special cases that may come to light in the work of the Office or that may be referred to it from other quarters. He attends the regular meetings of the Office staff and gives instruction and counsel for interviewing procedure. He brings into the everyday work of the Office a constant insistence on the mental hygiene point of view in all work done with individuals.

The other part-time employee of the office is a young woman who previously worked as a member of the regular staff. She has been employed in making a survey of occupational opportunities for women college graduates in various businesses and industries in Chicago.

How the Work of the Office Is Supplemented.—Even with the above comparatively large staff, it would be impossible for the Personnel Office to carry on its program of work were it not that volunteer service is rendered by students, faculty members, the Alumni Association, other personnel officers, and people outside the University interested in furthering the work. As was indicated before, the function of the Office was conceived as being coördinating and supplementary to the work being done elsewhere. It was set up, in a sense, to promote such work by others; to stir up studies, surveys, and experiments.

The Scope of the Work of the Department Thus Far.—The Office has not been able thus far to include in its scope of activity all of the Schools and Colleges in the University, although an office has now been opened on the Chicago campus. Starting with

the College of Liberal Arts as the main source from which the other Schools are fed, the Office has been able thus far to include in its program of service the students of Liberal Arts, the School of Speech, the School of Journalism, the School of Education, the School of Commerce, and freshmen in the School of Engineering. Although some coöperative work has been done with the other Schools, there yet remains a large field in the Schools of Music, Medicine, Law, Dentistry and Nursing.

The Cost of the Personnel Office.—The annual cost to the University for the service the Personnel Office renders students on the Evanston campus is now $18,000. The budget for the new work on the McKinlock Campus is $5,000 more. Since there are about 1800 new students who enter Liberal Arts, Speech, and the Evanston division of the School of Commerce each year, the cost per student for the more fully developed personnel work on the Evanston campus during the entire time spent there is about $10. The cost for instructors' salaries alone in these schools—leaving out all consideration of equipment, materials, space, etc.—is somewhat over one-half million dollars. This makes the cost of the Personnel Office about 3 per cent of that of the instruction of students in these schools. If physical equipment and overhead were taken into consideration in figuring these costs, the cost of the Personnel Office would be considerably less than 3 per cent of the total cost of instruction.

PART TWO

Personnel Service

Chapter Four

SELECTION OF STUDENTS

The devising of an adequate system of selection was one of first problems which the Personnel Office faced. There was a demand that some effort be made toward bringing into the University those who would profit most by what it had to offer. From a standpoint of the size of the physical plant of the University, the time had come when the number of those seeking admission had to be cut.

Ten Methods of Admission to College in Use Throughout the Country.—A study of entrance requirements, published by the Bureau of Education in 1920 on the basis of the college catalogues for 1916-1927 and used by a committee of the American Association of University Professors in a study on "Selection, Retention and Promotion of Undergraduates," shows the following ten methods of admission to college used throughout the country:[1]

1. Examination of the student in all the specified entrance subjects at the college or university itself. In 1917, of the 101 institutions included in the study, 50 out of the 51 State Universities and 40 out of the endowed colleges admitted on examination at the college.

2. Examination in the specified entrance requirements elsewhere than the college or university, under the direction of an approved examining board, such as the College Entrance Examination Board or the New York State Board of Regents. Eleven State institutions and 35 endowed accepted the examinations of the former board; 5 State and 16 endowed accepted those of the latter board. The

[1] *Bulletin of the American Association of University Professors,* Vol. XII, No. 6, October, 1926, pp. 413-414.

number of institutions accepting this method of admission has materially increased since 1917.

3. The presentation of certificates from properly accredited secondary schools, such as are approved or accredited by the North Central Association of Colleges and Secondary Schools and other similar accrediting organizations. All the State institutions and 45 of the endowed accepted certificates of accredited secondary schools.

4. Part certification and part examination. One State and two endowed.

5. Presentation of diploma from an approved normal school. Ten States, one endowed.

6. Presentation of diploma from an approved high school. See 3 above.

7. Presentation of a State teacher's certificate of the proper grade. Three State, one endowed.

8. "Comprehensive plan of examination" or the "new plan." Ten endowed.

9. Under special circumstances an entrant of sufficient age and experience may be allowed to do regular college work on probation. If successful, he may be allowed to graduate. Harvard. This category includes all special or unclassified students.

10. To these should now be added intelligence tests, which at certain colleges and under certain conditions have recently been used in partial substitution for the usual means of admission.

Those at Northwestern responsible for setting up a system of selection were familiar with all of these methods of admission. Practice in other places, however, was not an adequate basis for determining their policy. A system had to be worked out that would be based on the situation as it existed in this particular University which it was designed to fit.

Former Bases of Admissions at Northwestern.—Until 1922, Northwestern admitted on examination of the student in all the specified entrance subjects at the University itself; by examination in the specified entrance requirements elsewhere than the University, under the direction of an approved examining board; by the presentation of certificates from secondary schools accredited

by the North Central Association of College and Secondary Schools; and under special circumstances an entrant of sufficient age and experience was allowed to do regular college work on probation.

When it was decided to inaugurate a system of selective admissions, the above bases of admissions were not immediately modified. The Personnel Office, however, began to ascertain the characteristics of those applicants who had subsequently succeeded and characteristics of those applicants who had subsequently failed in their college work. On this basis it proposed gradually to modify and restrict its plans of admission.

It is to be remembered that the Personnel Office was without legislative power to change the admission standards of the University. Its work was to analyze the situation and present some scientific basis on which the faculty could gradually restrict the basis of admission.

General Assumptions Underlying the Research on a Selective Basis of Admission.—The assumptions underlying the proposal to set up a selective system were: first, that the general character of the group applying for entrance to the University in any one year would not be greatly different from that of the group which had applied for admission the previous year, so that it would be justifiable to apply conclusions derived from the study of students already in the University to those who wanted to become students in the University; second, that the educational offering of the University would probably remain fairly constant while this study was going on; third, that it was a desirable thing to set up a system whereby fewer and fewer students would be allowed to enter upon an undertaking at which it seemed fairly certain that they could not succeed; fourth, that among those who would not entirely fail it was desirable to give preference to those applicants for admission who could profit most by the University course; and fifth, other things being equal, it was desirable that a student, once embarked upon an educational program, should not drop

out of the University, but should continue that program to a successful end.

Composition of Student Body Apparently Fairly Constant Under Old Admissions Policy.—There was some basis for these assumptions in a survey that was made to discover whether the composition of the University student body had remained fairly constant under the system of a liberal admissions policy. The only objective data upon which such a survey could be based for the period just preceding the launching of the new policy of admissions, were to be found in an analysis of the geographical distribution of the student personnel of the College of Liberal

TABLE I

NORTHWESTERN UNIVERSITY—COLLEGE OF LIBERAL ARTS
GEOGRAPHIC DISTRIBUTION OF STUDENTS DURING A TEN-YEAR PERIOD

Year	Total	Chicago and Evanston		Outside Chicago and Evanston but in Ill.		Outside Ill. but in U. S.		Foreign	
		No.	%	No.	%	No.	%	No.	%
1914–15	1246	513	41.2	467	29.4	353	28.4	13	1.0
1915–16	1315	573	43.5	379	28.9	350	26.6	13	1.0
1916–17	1465	713	48.6	329	22.4	411	28.0	12	1.0
1917–18	1272	656	51.6	256	20.1	350	27.5	10	.8
1918–19	1976	948	47.9	541	27.4	474	24.0	13	.7
		In Illinois							
		No.		%					
1919–20	1909	1308		68.5		590	30.8	11	.7
1920–21	1896	1275		67.3		596	31.4	25	1.3
1921–22	1993	1378		69.1		589	29.6	26	1.3
1922–23	2072	1437		69.4		612	29.5	23	1.1
1923–24	2132	1532		71.9		579	27.2	21	.9

TABLE II

NORTHWESTERN UNIVERSITY—COLLEGE OF LIBERAL ARTS
REGISTRATION ANALYSIS THROUGH TEN-YEAR PERIOD

	Men	*Women*	*Total*
1914–15			
Number entering	267	301	568
Total for L. A.	553	693	1246
Number grad.	81	102	183
1915–16			
Number entering	262	318	580
Total for L. A.	570	745	1315
Number grad.	92	136	228
1916–17			
Number entering	335	366	701
Total for L. A.	629	836	1465
Number grad.	84	172	256
1917–18			
Number entering	225	371	596
Total for L. A.	464	808	1272
Number grad.	60	127	187
1918–19			
Number entering	751	443	1194
Total for L. A.	1051	925	1976
Number grad.	71	170	241
1919–20			
Number entering	487	493	980
Total for L. A.	880	1028	1908
Number grad.	109	176	285
1920–21			
Number entering	416	489	905
Total for L. A.	828	1068	1896
Number grad.	91	171	262
1921–22			
Number entering	445	524	969
Total for L. A.	862	1129	1999
Number grad.	102	202	304
1922–23			
Number entering	465	574	1039
Total for L. A.	885	1186	2071
Number grad.	105	197	302

TABLE II (*continued*)

	Men	*Women*	*Total*
1923–24			
Number entering	457	600	1057
Total for L. A.	875	1262	2137
Number grad.	85	170	255

Arts over a ten-year period, and an analysis of registration in terms of men and women entering and graduating from the College of Liberal Arts during the same period. Tables I and II on pages 30 and 31 show these data.

Here it will be seen that in 1914-15, 41 per cent of the students in the College of Liberal Arts came from Chicago and Evanston and 29 per cent from places outside Chicago and Evanston but in Illinois, so that a total of 70 per cent of the students in Liberal Arts came from Illinois in that year. This figure fell as low as 67 per cent in 1920-21, and rose as high as 75 per cent in 1918-19, but on the whole stayed pretty steadily at 71 per cent. The percentage of those who came from outside of Illinois but in the United States was 28 per cent in 1914-15, fell as low as 24 per cent in 1918-19, and rose as high as 31 per cent in 1920-21, but was 29 per cent in 1922-23 and 27 per cent in 1923-24. The percentage of foreign students during the ten-year period varied only from a little less to a little more than one per cent. From an analysis of geographical distribution, then, the student body seemed to vary little during this ten-year period.

An analysis of registration in terms of the numbers of men and women who entered and were graduated from Liberal Arts during this same ten-year period reveals the fact that the women entering Liberal Arts under ordinary circumstances outnumbered the men by approximately one-sixth. During the war year of 1917-18, fewer men entered college than usual; but the next year, again influenced by the war, the number of men entering more than tripled, and for the first and only time the number of men in the freshman class and in Liberal Arts exceeded the number of women. From the years 1916 to 1924 the table shows that the

number of women graduated from the College each year was about twice that of men. This analysis in terms of numbers of men and women entering and being graduated from Liberal Arts again indicates that the constituency of the College, when uninfluenced by war factors, remained fairly constant.

Next the Office set about to ascertain the situation with regard to the number of students who entered the College of Liberal

TABLE III

LIBERAL ARTS CLASS OF 1923

Semester	Number Staying to End of Semester	Leaving at the End of Each Semester		Transferring to Other N. U. Schools		Transferring to Other Universities		Not Transferred at All		Left by End of Each Semester	
		No.	%	No.	%	No.	%	No.	%	No.	%
8.....	181	....	.....	....	.....	....	.....	....	.....	....	.....
7.....	183	2	.28	....	.....	1	.14	1	.14	514	73.95
6.....	218	35	5.03	9	1.29	8	1.15	18	2.58	512	73.66
5.....	246	28	4.02	6	.86	12	1.72	10	1.44	477	68.67
4.....	368	122	17.54	42	6.04	48	6.90	32	4.60	449	64.60
3.....	412	44	6.33	9	1.29	14	2.01	21	3.02	327	47.05
2.....	581	169	24.31	6	.86	86	12.37	77	11.07	283	40.72
1.....	655	74	10.74	7	1.00	31	4.46	36	5.17	114	16.40
0.....	695	40	5.75	....	.....	3	.43	37	5.32	40	5.75
TOTALS		514	73.95	79	11.36	203	29.21	232	33.38	....	.....

Of the 181 staying eight semesters, 149 (21.4% of class) graduated in June.

Arts, how many stayed through and were graduated, how many transferred to other Northwestern Schools, how many transferred to other institutions, and how many left without graduation or transfer to another institution.

An Analysis Showing the Fate of 695 Students of the Class of 1923.—The first class thus studied was the Class of 1923 (those entering in 1919-1920). Table III and Figure 1 show what apparently was happening to those who entered the College of

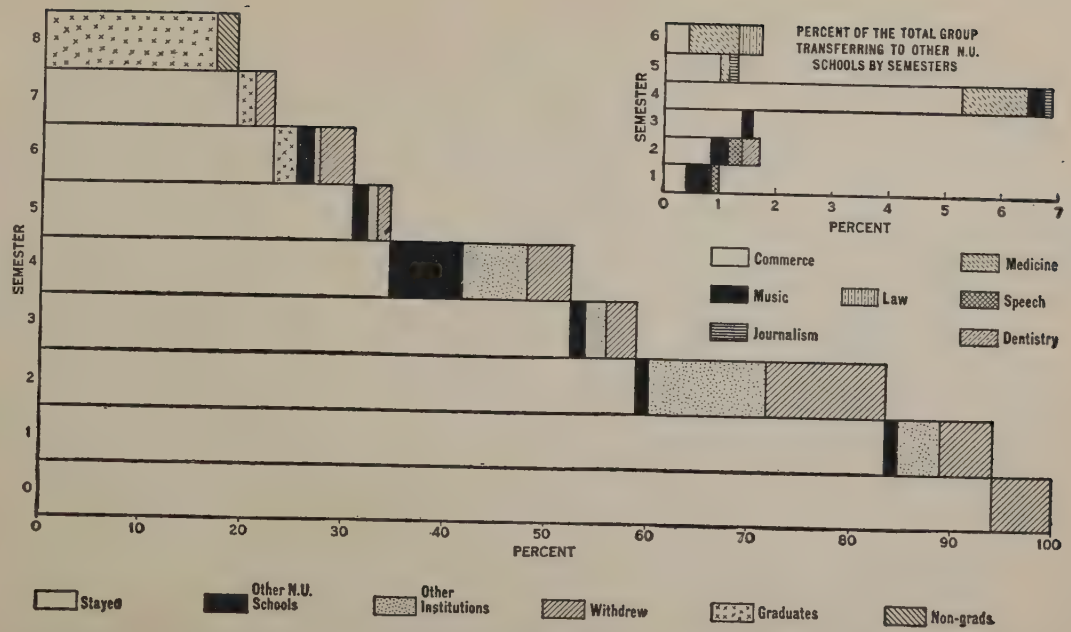


FIGURE 1

THIS CHART SHOWS WHAT BECAME OF THE 628 MEN AND WOMEN WHO ENTERED LIBERAL ARTS AS FRESHMEN IN 1919-20. THEY ARE CLASSIFIED BY SEMESTERS ACCORDING TO THOSE STAYING, THOSE TRANSFERRING TO OTHER N. U. SCHOOLS, THOSE TRANSFERRING TO OTHER INSTITUTIONS, THOSE LEAVING WITHOUT TRANSFERRING, THOSE FAILING TO GRADUATE, AND THOSE GRADUATING

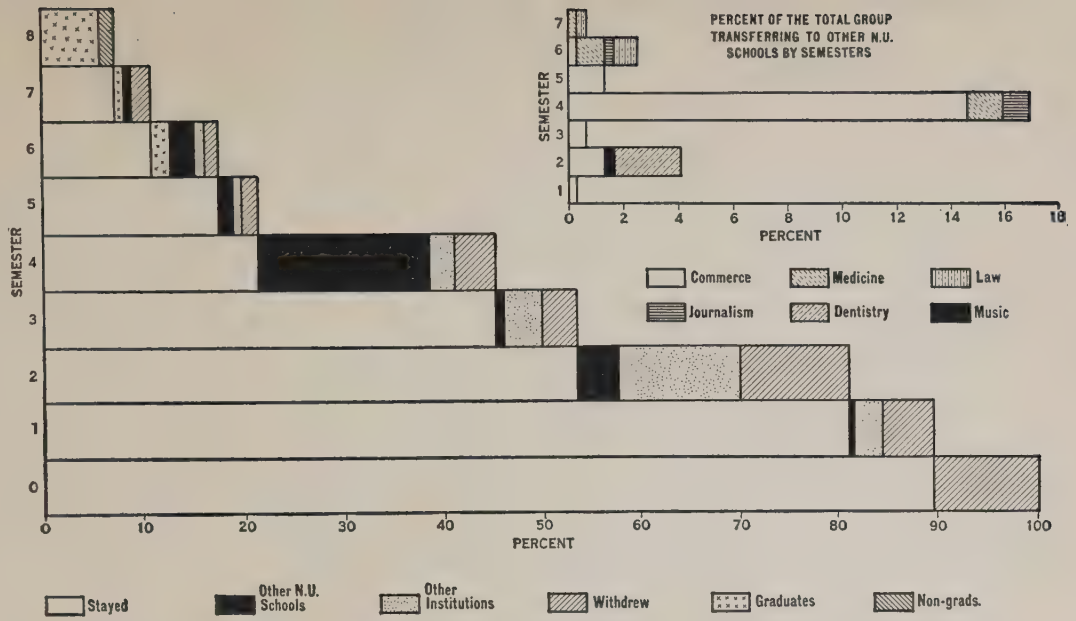


FIGURE 2

THIS CHART SHOWS WHAT BECAME OF THE 628 MEN AND WOMEN WHO ENTERED LIBERAL ARTS AS FRESHMEN IN 1921-22. THEY ARE CLASSIFIED BY SEMESTERS ACCORDING TO THOSE STAYING, THOSE TRANSFERRING TO OTHER N. U. SCHOOLS, THOSE TRANSFERRING TO OTHER INSTITUTIONS, THOSE LEAVING WITHOUT TRANSFERRING, THOSE FAILING TO GRADUATE, AND THOSE GRADUATING

Liberal Arts as freshmen. Eleven per cent of them were using the College as a ladder by which to climb into some professional school of the University. Twenty-nine per cent were leaving the College to go to other institutions. One-third of all who entered were simply dropping out entirely; they asked for no transfer of credit to another institution and so could not have continued their study at another academic institution.[2] Twenty-one per cent of the class was graduated after spending eight semesters in the College.

A Similar Analysis for the Class of 1925.—Table IV and Figure 2 show the results of a similar study made two years later of a class that entered just before the first selective regulations were set up. This study shows 16 per cent entering the professional schools from the College of Liberal Arts as compared with 11 per cent of the class of 1923; 23 per cent were transferring to other institutions as compared with 29 per cent of the class of 1923; 38 per cent of the class of 1925 dropped out entirely for one reason or another, compared with 33 per cent of the class of 1923. There was no difference in the proportions that continued through to graduation in the College of Liberal Arts: 21 per cent in the class of 1925 and 21 per cent in the class of 1923.

A Comparison of the Figures for the Men and Women of the Class of 1925.—In order to discover conditions more accurately, the figures for the class of 1925 were examined for the men and women students separately. Table V gives the results of this investigation. Figure 3 shows the results for the men students separately. The number of men and women in the class were approximately equal: 312 and 316. When these figures are examined, we find that in the class of 1925, 38 per cent of the men withdrew, as compared with 35 per cent of the women; 26 per cent of the men transferred to other schools within the University, as compared with six per cent of the women; only eight per cent

[2] An analysis of some of the reasons why these students dropped out has been begun. One study will be found at the end of Chapter V.

TABLE IV

CLASS OF 1925

	Semester in Liberal Arts									
	0	1	2	3	4	5	6	7	8	Totals
Withdrew	54	33	70	25	22	8	12	9	....	233
Commerce	....	2	5	2	49	4	1	....	....	63
Medical	....	....	....	....	4	....	3	1	....	8
Law	....	....	....	....	....	....	3	1	....	4
Dentistry	....	....	8	....	....	....	....	....	....	8
Journalism	....	....	....	....	6	2	2	....	....	10
Music	....	2	1	3	....	....	....	....	....	6
Speech	....	1	2	....	....	....	....	....	....	3
Graduated	....	....	....	....	....	....	11	10	116	137
Non-grads.	....	....	....	....	....	....	....	....	9	9
Transferred elsewhere	....	21	65	23	24	7	7	....	....	147
Totals	54	59	151	53	105	21	39	21	125	628

This tabulation shows when the freshmen who entered Liberal Arts in 1921–22 left the College. The perpendicular columns show the semesters after which they left or were graduated. The horizontal columns show what they did when they left. "Withdrew" means that the student left without asking for a transcript. Medicine, Law, Dentistry, etc., designate other Northwestern Schools. "Transferred elsewhere" means only that a transcript to some other university was asked for; there has been no check to determine just how many actually continued work elsewhere. Some few of the "withdrew students" of Columns 6 and 7 were actually in Liberal Arts during the eighth semester, but had been out two or one semesters before. Only the total number of semesters of work are recorded; when they were completed is not taken into consideration. Summer school work has not been included in the tabulation of semesters of work done. Figure 2 shows the facts of this table.

of the men continued through eight semesters in Liberal Arts and were graduated from that College, as compared with 34 per cent of the women; 24 per cent of the men transferred to other institutions, as compared with 22 per cent of the women.

In view of one of the assumptions underlying the program of selective admission, these results would seem to be important. If, as it was assumed, it was desirable that a student, once embarked upon an educational program, should not drop out of the

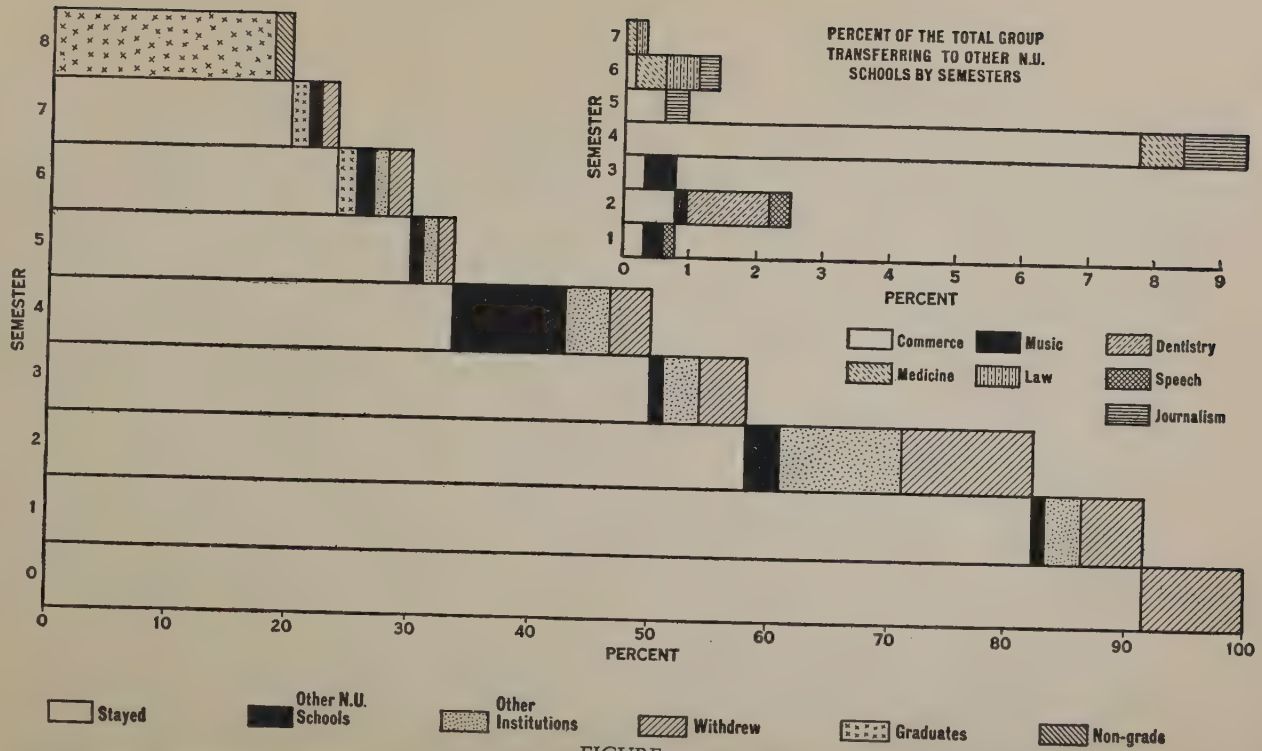


FIGURE 3

THIS CHART SHOWS WHAT BECAME OF THE 312 MEN WHO ENTERED LIBERAL ARTS AS FRESHMEN IN 1921-22. THEY ARE CLASSIFIED BY SEMESTERS ACCORDING TO THOSE STAYING, THOSE TRANSFERRING TO OTHER N. U. SCHOOLS, THOSE TRANSFERRING TO OTHER INSTITUTIONS, THOSE LEAVING WITHOUT TRANSFERRING, THOSE FAILING TO GRADUATE, AND THOSE GRADUATING

TABLE V

Class of 1925

The data of Table IV are here shown with the men and women considered separately. Figure 3 is based on the data for the men here presented.

		Semesters in Liberal Arts									Totals
		0	1	2	3	4	5	6	7	8	
Withdrew	Men	32	16	34	12	11	5	4	6	....	120
	Women	32	17	36	13	11	3	8	3	....	113
Commerce	Men	....	1	4	2	46	4	1	....	....	58
	Women	....	1	1	....	3	....	....	....	....	5
Medicine	Men	....	....	....	....	4	....	3	1	....	8
	Women	....	....	....	....	....	....	....	....	....	0
Law	Men	....	....	....	....	....	....	3	1	....	4
	Women	....	....	....	....	....	....	....	....	....	0
Dentistry	Men	....	....	8	....	....	....	....	....	....	8
	Women	....	....	....	....	....	....	....	....	....	0
Journalism	Men	....	....	....	....	3	....	1	....	....	4
	Women	....	....	....	....	3	2	1	....	....	6
Music	Men	....	....	1	....	....	....	....	....	....	1
	Women	....	2	....	3	....	....	....	....	....	5
Speech	Men	....	....	....	....	....	....	....	....	....	0
	Women	....	1	2	....	....	....	....	....	....	3
Graduated	Men	....	....	....	....	....	....	6	3	19	28
	Women	....	....	....	....	....	....	5	7	97	109
Non-grads	Men	....	....	....	....	....	....	....	....	4	4
	Women	....	....	....	....	....	....	....	....	5	5
Transferred elsewhere	Men	....	10	39	14	8	3	3	....	....	77
	Women	....	11	26	9	16	4	4	....	....	70
Totals	Men	32	27	86	28	72	12	21	11	23	312
	Women	22	32	65	25	33	9	18	10	102	316
											628

University but should continue that program to a successful end, something needed to be done in order that this desirable result might be more nearly approached. Apparently about 12 per cent of those who entered the College of Liberal Arts as freshmen planned to take pre-professional work in Liberal Arts and later to transfer to one of the professional schools of the University. There was no thought of trying to overcome this tendency by any entrance requirements that might be set up. Neither were the 20 per cent who attended Northwestern for a year or so and then transferred to other institutions so much an object of concern. Some of these undoubtedly transferred to other institutions because they did not find what they expected at Northwestern, or because, even though they had been correct in their expectations, they were not able to adjust themselves to the conditions which they met. In so far as these were the reasons for their leaving, they should be taken care of eventually by more careful methods of admission and adjustment.

The Selective Program Finds Its Initial Focus in the Third of the Total Entrants Who Drop Out of College Entirely.—The group of students who appeared to need careful attention was the large group—more than one-third—who dropped out of college for one reason or another some time during the eight semesters. It was felt that careful study should be given to discover who these students were, why they were not able to finish what they had begun, and how the institution could set up standards that would enable it to sift out these applicants who, if admitted, would leave because of inability to adjust themselves satisfactorily.

Accordingly the next approach to the problem of selection was along these lines.

Chapter Five

SELECTION OF STUDENTS (*Continued*)

In order to determine who the students were who left the College in such large numbers, a further study was made of the classes of 1923 and 1925. At the time that the study of the class of 1925 was made (spring of 1923) this class had been in the University only three semesters. Figures 4 and 5 present the results of this study.

A Further Analysis of the Classes of 1923 and 1925.—Six hundred ninety-five entered in the Liberal Arts class of 1923. 519, or 75 per cent of these, had left Liberal Arts to transfer to professional schools, to other institutions, or to drop out entirely by the beginning of the eighth semester. One hundred and forty-nine were graduated from the College of Liberal Arts. Twenty-seven students remained through eight semesters but failed to fulfill the requirements for graduation in that time. Of the 695 who entered:

40 or 6 % of the total entering class withdrew without receiving any grades (that is, after less than one semester)
74 or 11 % withdrew at the end of the first semester
169 or 24 % withdrew at the end of the second semester
44 or 6 % withdrew at the end of the third semester
122 or 18 % withdrew at the end of the fourth semester
28 or 4 % withdrew at the end of the fifth semester
40 or 6 % withdrew at the end of the sixth semester
2 or 0.3% withdrew at the end of the seventh semester
27 or 4 % stayed during the eighth semester but were not graduated
149 or 21 % remained and were graduated

The figures for the first three semesters of the class of 1925 are similar: The total entering was 623; 314, or 50 per cent, remained at the beginning of the fourth semester:

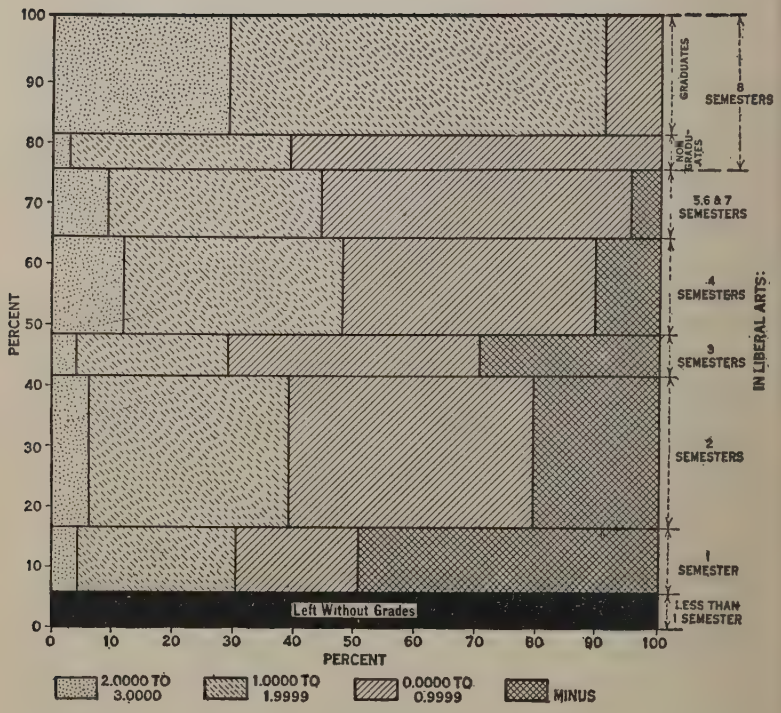


FIGURE 4

THIS CHART SHOWS THE DISTRIBUTION OF POINT AVERAGES FOR VARIOUS GROUPS LEAVING THE CLASS OF 1923

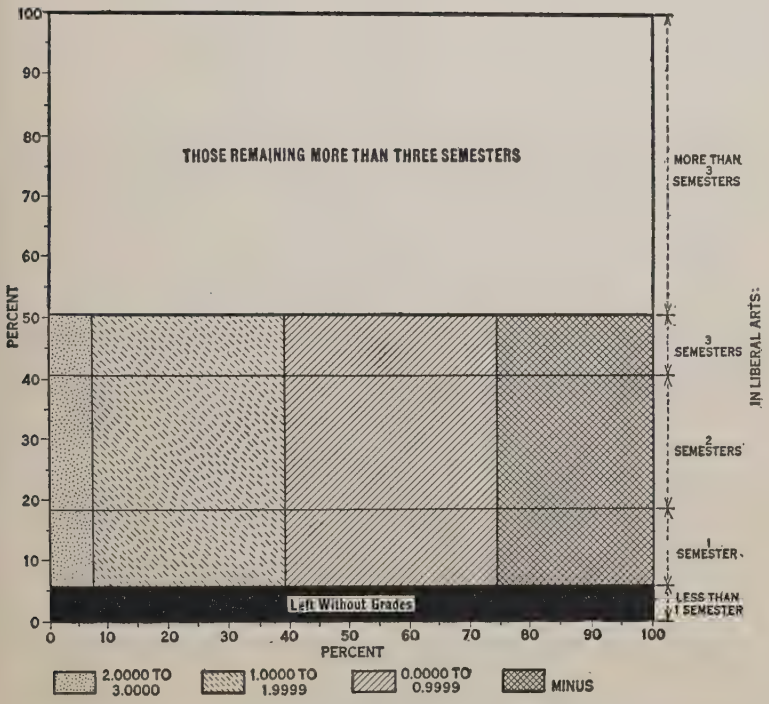


FIGURE 5

This Chart Shows the Proportion of Students Leaving the Class of 1925 During the First Three Semesters. The Proportions of Point Averages Are Shown for the Entire Group Regardless of Their Time of Leaving

32 or 5% withdrew without receiving any grades
81 or 13% withdrew at the end of the first semester
148 or 25% withdrew at the end of the second semester
53 or 9% withdrew at the end of the third semester

Students of "C" Grade or Above Do Not Abandon Their Educational Plans in Very Great Numbers.—Comparatively few students are lost to Liberal Arts through transfer to professional schools until the end of the fourth semester. Only 102 of the 327 who had left the class of 1923 by the end of the third semester had grades of C or above. Upon further examination it was discovered that there were only 44 students out of these 102 who made an average of C or above in their college work and also stood above the median of their college class on the Thurstone test.

Similarly, there were only 17 women and 16 men out of the 314 who left the class of 1925 by the end of the third semester who were above the median both in mental alertness score and in scholastic average.

On the basis of this study it appeared that those who were leaving Northwestern were the inferior students, and that if norms could be set up for determining before a student entered the University whether he showed scholastic possibilities or not, the mortality rate might be cut down considerably.

Attempts to Discover Objective Criteria Upon Which to Base Selection.—The two fairly objective criteria which seemed promising were mental alertness scores and high school scholarship records. Several surveys outlined below were made which established these two items as being somewhat productive of success or failure in college work.

Studies of the Relationship Between High School and College Scholastic Standing.—From September, 1919, to February, 1922, 125 students were admitted to Liberal Arts who had stood in the fourth[1] quarter of their class in high school. None of this

[1] That is the lowest quarter, scholastically, of the senior class in whatever high school the student graduated.

group got an average grade of A in college. Only one had an average of B. Seventeen had a C average or better, for the time they were in the College. Of these 17, six, or five per cent of the total group of 125, had not dropped out by the end of their junior year. Of the total group of 125 students from the fourth quarter of their high school classes, then, there were only six who had a possibility of graduating within four years.

A more careful study of the other 11 of the 17 who had a C average or better for the time they stayed in College reveals the following facts:

(1) Two students were in the University for only one semester. Had they stayed longer their average might not have been so good.

(2) One was a nurse and registered for only seven hours of work.

(3) Four had attended at least two high schools. This may have been one factor in placing them in the lowest scholastic quarter of their classes.

(4) One attended high school only three years and was, therefore, placed in the fourth quarter of her graduating class by the high school.

(5) Three had attended at least two high schools and were ranked by a high school they had attended only one year.

The conclusion of this study was that "such a record of scholastic history indicates that this group of fourth-quarter students is, as a whole, unsatisfactory from the College point of view, even though there were six members of the 125 who were satisfactory."

A number of other studies were made, taking into consideration only high school standing as a factor in college success. The most complete of these was one made of 1163 students in the Liberal Arts classes of 1925 and 1926 who stayed long enough to receive grades. Table VI shows the results of this study.

We see from these data that the probability that a student who comes from the highest quarter of his high school graduating class will stand in the highest quarter in college is more than five times as great as it is that he will fall into the lowest quarter in college. On the other hand, the probability is thirty times greater that a student from the lowest quarter of his high school class will fall into the lowest quartile in college than that he will achieve the

TABLE VI

COMPARISON BETWEEN QUARTILE STANDINGS OF STUDENTS IN HIGH SCHOOL AND COLLEGE

College Standing	HIGH SCHOOL STANDING									
	1st Q.		2nd Q.		3rd Q.		4th Q.		Unc.[a] Q.	
	No.	%	No.	%	No.	%	No.	%	No.	%
1st Q. 1.60 and up	181	15.56	31	2.68	7	.60	1	.10	45	3.89
2nd Q. 1.0 to 1.59	105	9.05	66	5.70	38	3.29	6	.52	79	6.8
3rd Q. .30 to .99	48	5.27	73	6.30	61	5.27	36	3.11	102	8.79
4th Q. .29 and lower	32	2.75	40	3.45	43	3.70	40	3.45	129	10.10

[a] "Unc." means that these students were unclassified as to high school standing.

This table shows the quartile standing in both high school and college work of 1163 students in the Liberal Arts class of 1925 and 1926 who stayed long enough to receive grades. The college standing is based on three semesters' work or less (it is less for those who did not stay three semesters). The perpendicular columns show high school standing. The table should be read thus: of the 1163 students, there were 181 or 15.56 per cent who had stood in the first quarter of their high school graduating classes who also stood in the first quarter in college, *i.e.*, made a point average of 1.60 or better. There were 105 or 9 per cent who stood in the first quarter of their high school graduating classes who stood in the second quarter in college. There was only one student who came from the fourth quarter of his high school class who made a point average in college of 1.60 or more.

highest quartile scholastically. Obviously a positive relationship exists between scholastic standing in high school and scholastic standing in the Liberal Arts College at Northwestern.

Correlation Between Intelligence Tests and Scholastic Standing in College.—A study of the classes of 1923 and 1925 gave a correlation (r) of +.32 P.E. .04 between scores made on the Thurstone intelligence test and university scholastic standing and a correlation (r) of +.37 P.E. .03 between scores made on the Scott Company intelligence tests and university scholastic standing. These correlations are positive, to be sure, but neither of them is high.

In the fall of 1924 the Scott test was supplanted by a test compiled by a committee of the American Council on Education. A correlation (r) of +.56 P.E. .03 was secured by correlating certain sections of this test with scholastic standing in college. Although this correlation is considerably higher and shows

Additional Notes to Table VI

Q in Table VI, and wherever used in tables or charts, means quartile or quarter. If a student is described as being in the first quarter of his high school class, it means that he stood among the highest 25 per cent, scholastically, in the senior class of the high school from which he was graduated.

The grading system at Northwestern is one used in a number of colleges and universities: Standing is expressed, according to proficiency, as grade A, B, C, D, E, or F. Grade A denotes superior scholarship; grade B, good scholarship; grade C, fair scholarship; grade D, poor scholarship; grade E, a condition which may be removed by a "second examination" (although the grade can never be raised above a D); grade F, a failure, and credit for a course so marked can be obtained only by repetition of the subject in class.

A grade of A carries a positive value of 3 points
A grade of B carries a positive value of 2 points
A grade of C carries a positive value of 1 point
A grade of D carries a positive value of 0 points
A grade of E carries a negative value of 1 point
A grade of F carries a negative value of 2 points

At the close of the semester, the student's standing is determined by taking the sum of all the products obtained by multiplying the number of hours in each of his courses by the positive or negative value in points assigned to the grade in that course, this sum to be divided by the number of hours of the student's registration. The standing for a period covering more than one semester is determined by taking the average of the standings for the several semesters.

relationship with book-learning ability, still it is not high enough to be of real predictive value.

Attempt to Discover Critical Scores on Tests and in High School Standing.—It was not necessary, however, in order to be able to set up effective selective standards, to find a test of scholastic aptitude that would make it possible to predict that the applicant for admission who stood first on the test would stand first in college scholarship record; that the student who stood second on the entrance tests would stand exactly second in his college scholarship. The more important need was for a critical point below which a student would not be likely to succeed in the academic work offered at Northwestern.[2]

The study reported at the beginning of this chapter of the 327 students who had left the class of 1923 by the end of the first semester gave some indication that such a critical point could be established for mental alertness scores. That study showed that only 102 of the 327 had made a C average or above in college, and that only 44 of these 102 who had made a C average or better in their college work also made a grade above median on the Thurstone test. A similar result was noted in the study of the class of 1925: only 23 students of the 314 who had left that class by the end of the third semester were above the median both in scholastic standing and mental alertness score.

The conclusion that mental alertness score alone was not enough, and that it was, in fact, not so good a single criterion for our use at Northwestern as high school standing[3] was drawn in part from an examination of the classes of 1923 and 1925 which revealed the following facts:

(a) Of the students in those classes who had stood in the first quarter of their high school classes, one person made an

[2] For further discussion of methods of setting up critical scores, see *Principles of Employment Psychology* by Harold E. Burtt, Houghton Mifflin Co., 1926, p. 283.

[3] See pages 152 and 153 for the findings of some other institutions with regard to the criteria of mental alertness score and high school standing.

average as low as 1.6. Seven first-quarter students in the two classes made an average below 0.0000. (See notes to Table VI, page 47, for an explanation of an average of 1.6 and 0.0000.)

(b) Of the students in those classes who had stood in the lowest quarter of their high school classes, only two students out of the whole number had made an average in college higher than 1.5000.

(c) We find that the members of the two classes who made an average of 2.00 or above in their college work had the following distribution of standing in high school:

Number of first-quarter high-school students	82
Number of second-quarter high-school students	11
Number of third-quarter high-school students	3
Number of fourth-quarter high-school students	0

When a study was made that took into account both high school standing and the result on the mental alertness test (see Table VII) we found the results as shown graphically in Figure 6. An examination of this chart shows that there were 134 students of the classes of 1925 and 1926 who were classified as being in the upper quarter of their high school classes and who made mental alertness scores in the upper quartile when they entered college. These turned out to be very good students for the most part. Only 14 of them made grades below C in their college work.

From Figure 6 we see that the frequency of good grades tends to decrease and that of poor grades to increase as we pass from the top toward the bottom of the chart; *i.e.,* as we go from first quarter in high school standing and first quarter in mental alertness to first quarter in high school standing and second, third, and fourth quarters in mental alertness, and then to second quarter high school standing and the first, second, third, and fourth quarters of mental alertness, etc. Figure 6 indicates that a combination of high school standing and mental alertness score

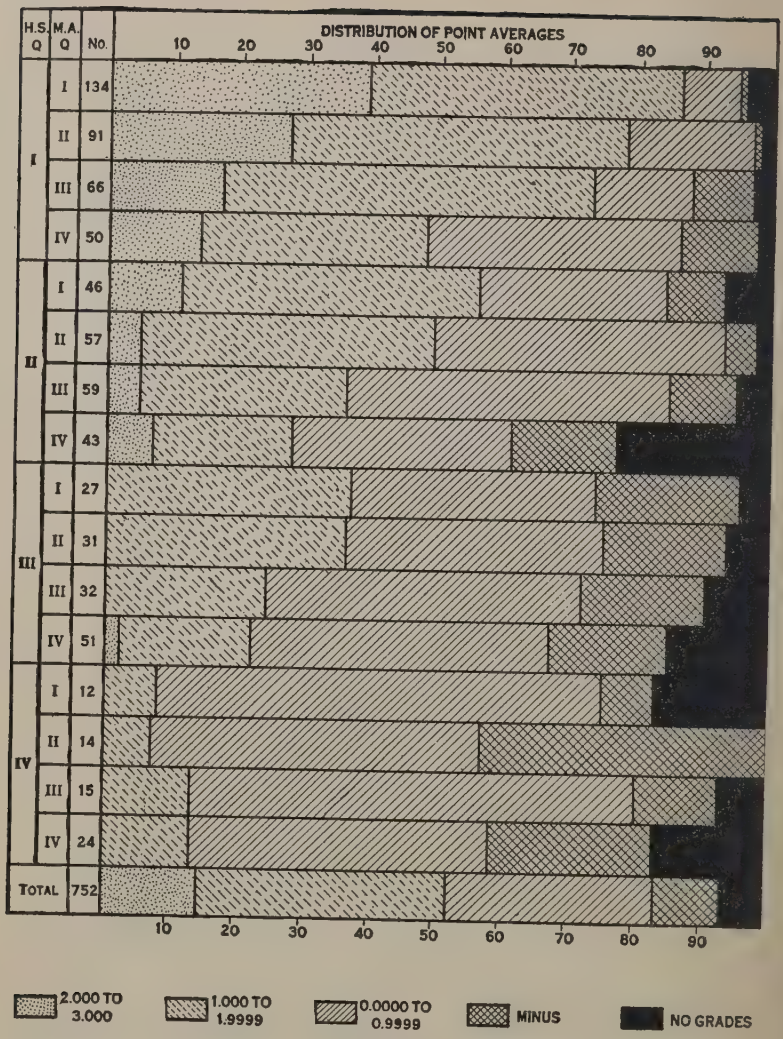


FIGURE 6

THIS CHART SHOWS THE DISTRIBUTION OF POINT AVERAGES OF COLLEGE STUDENTS GROUPED ACCORDING TO THEIR QUARTILE STANDING IN HIGH SCHOOL (H.S.Q.) AND IN THE MENTAL ALERTNESS TEST SCORE (M.A.Q.). THE DISTRIBUTIONS ARE BASED ON THREE SEMESTERS OF WORK DONE BY THE L. A. CLASSES OF 1925 AND 1926

TABLE VII

DISTRIBUTION OF THE COMBINED GRADES OF THE CLASSES OF 1925 AND 1926 ON THE BASIS OF H. S. QUARTER AND M. A. QUARTER.

H.S.Q.	M.A.Q.	3 to 2		1.9 to 1		.9 to .0		Minus		No Grade		Total	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
I	1	52	39	63	47	12	9	2	1	5	4	134	39
	2	25	27	46	51	17	19	1	1	2	2	91	27
	3	11	17	37	56	10	15	6	9	2	3	66	19
	4	7	14	17	34	19	38	6	12	1	2	50	15
Total		95	28	163	48	58	17	15	4	10	3	341	33
II	1	5	11	21	45	13	28	4	9	3	7	46	22
	2	3	5	25	44	25	44	3	5	1	2	57	28
	3	3	5	18	31	29	49	6	10	3	5	59	29
	4	3	7	9	21	14	33	7	16	10	23	43	21
Total		14	7	73	35	81	40	20	10	17	8	205	20
III	1	.....	....	10	37	10	37	6	22	1	4	27	19
	2	.....	....	11	36	12	39	6	19	2	6	31	22
	3	.....	....	8	25	15	47	6	19	3	9	32	23
	4	1	2	10	20	23	45	9	18	8	15	51	36
Total		1	1	39	28	60	43	27	15	14	10	141	13
IV	1	.....	....	1	8	8	67	1	8	2	17	12	18
	2	.....	....	1	7	7	50	6	43	.....	....	14	22
	3	.....	....	2	13	10	67	2	13	1	7	15	23
	4	.....	....	3	13	11	45	6	25	4	17	24	37
Total		.....	....	7	11	36	55	15	23	7	11	65	6
Unc.	1	7	13	23	42	16	29	6	11	3	5	55	19
	2	3	4	24	29	30	37	18	22	7	8	82	28
	3	2	3	20	31	26	39	14	21	4	6	66	23
	4	1	1	16	19	38	44	24	28	7	8	86	30
Total		13	5	83	29	110	38	62	21	21	7	289	28
TOTAL		123	12	365	35	345	33	139	13	69	7	1041	...

M.A.Q. I, 86–61; II, 60–54; III, 53–47; IV, 46–12.

may have real significance in predicting college success for students entering Northwestern.

Since 1926-27 Northwestern has been getting information regarding the high school standing of its entering students in terms more exact than the information that he was in the first, second, third, or fourth quarter of his high school class. The high schools have been certifying, for example, that the student stood 61st in a class of 359, or second in a class of 122, etc. Such information has made possible the computation of coefficients of correlation showing the relationship between high school and college scholastic standing. These coefficients have been about +.70, although one man was as high as +.74 for students coming from the large high schools with graduating classes of 100 or more. When students from smaller high schools are included, the relationship is not so close, although it is still higher than the coefficient of correlation between score on the psychological examination and scholastic standing in college.

Relationship Between Academic Success in High School and College Is High in General but Differs with Different High Schools.—The high relationship between success in high school and success at Northwestern which the studies seem to indicate is probably due to the uniformly high standards of most of the high schools in the Chicago district, from which Northwestern draws the bulk of its students. It seems sensible to suppose, however, that not all preparatory schools send a uniform quality of students. In an effort to discover whether this was true, a study was made of the students who entered the College of Liberal Arts as freshmen in 1921 and 1922. (See Figure 7.) The results of this study indicate that there are differences in the quality of students the College draws from the various high schools. Students from Evanston High School stand higher on the whole, than those from military academies. Private schools, as a class, do not send a very large percentage of good students to Northwestern. The numbers from some of the schools, however, were

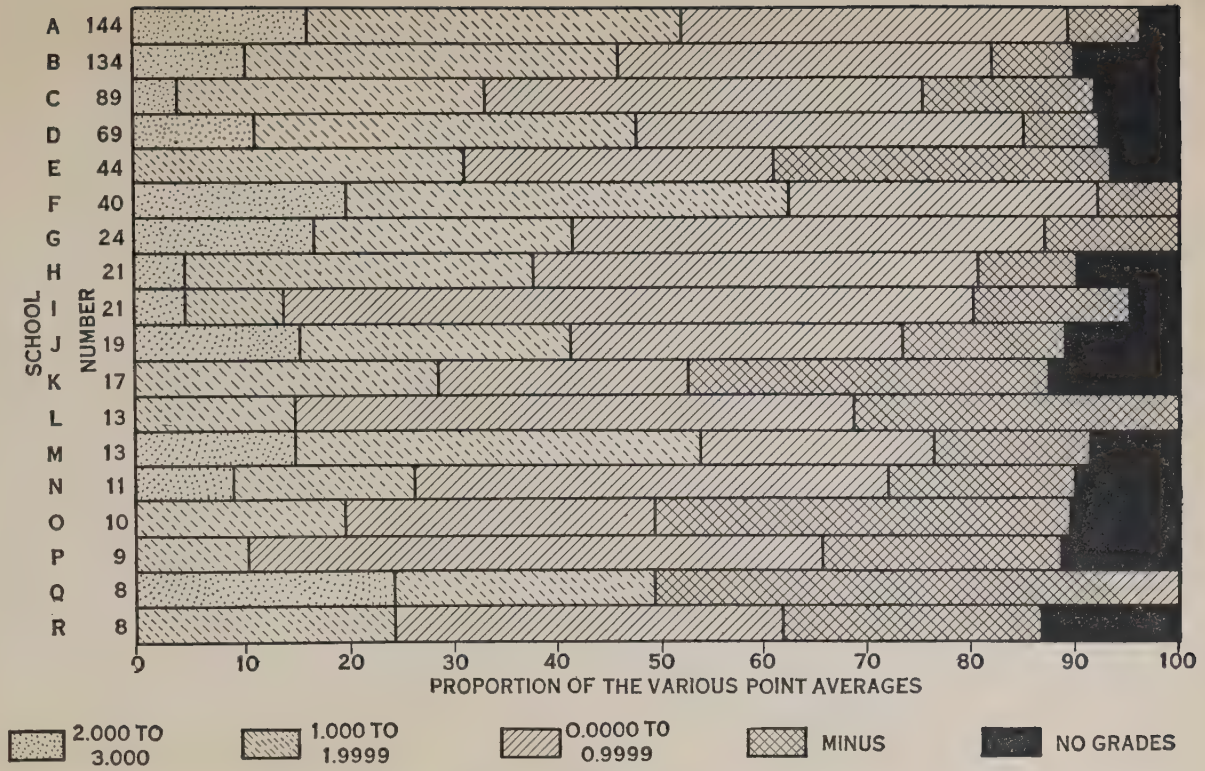


FIGURE 7

THIS CHART SHOWS THE RELATIVE COLLEGE SCHOLARSHIP OF THE VARIOUS HIGH SCHOOL GROUPS. THE STUDENTS INCLUDED ENTERED N. U. LIBERAL ARTS AS FRESHMEN IN 1921 AND 1922

too small to justify final conclusions. A further study will be made of the relative college scholarship of the various high school groups.

It may be that on the basis of the study of a larger number of students it would seem justifiable to lessen the weight given to "first quarter high school" when the student had attended a preparatory school which sends a negligible proportion of "A" students to the University. This would seem to be necessary if the fault lies in the fact that those schools do not prepare the students well. However, it may be that those high schools whose students do not make a good showing in the University simply draw their students from a community whose members do not rate high mentally, on the whole. If the latter is the case, establishing a critical point on an entrance mental alertness test may be effective in keeping these students from undertaking a program at which they must fail.

Legislation with Regard to Selection Based on Research Results.—On a basis of facts gleaned from the studies of the Office, the Liberal Arts faculty passed a ruling that those entering in the fall of 1925 who were from the fourth quarter of their high school graduating class in scholastic standing would not be admitted unless they showed compensating qualities. Every one who wished to enter the College of Liberal Arts was required to take three entrance examinations: the American Council Psychological Examination, a placement test in English, and one in algebra. Any student certified to be in the upper three quarters of his high school class was allowed to enter during 1925, regardless of his standing on the entrance examinations. Many students from the fourth quarter of their high school who might otherwise have wanted to enter the University, decided not to attempt to do so because of the hurdles put up for them to jump. Those who did come understood before taking the tests that a low test score (below the 25th percentile) would bar their entrance. As a

matter of fact, few fourth-quarter students stood high enough on the tests that year to justify their admission.

Since 1925 the entrance conditions have been still further modified on the basis of studies made by the Personnel Office. The College now requires that prospective students have 15 units of high school work, including specified subjects, and that they be certified to rank scholastically in the upper half of their high school classes; or, failing this last requirement, that they pass an intelligence test, placement tests in English and algebra, and an essay examination on two years of a high school language.

Each applicant for admission must fill out application blanks giving information about himself, and must ask his high school principal or teacher, a parent, and an alumnus of Northwestern or a friend, to fill out additional blanks. Finally, a physician's statement is requested. A student may not be admitted with a high school condition in subjects specified for admission. Until the fall of 1926, conditions were allowed in language, but now the requirement has been reduced from three years to two years of language—following a tendency in the North Central Association—and no conditions are allowed. The other specified subjects are three years of English, one year of plane geometry, and one year of algebra. All but three of the remaining units must be from a list of approved subjects.

At the present time students from the upper half of their high school classes whose application is supported by the proper auxiliary blanks, who have the required high school subjects, and who are not known to be of bad moral character or defective personality, are obliged to take three entrance tests but are admitted regardless of their score on these tests. Others whose credentials are satisfactory, except that they rank in the lower half of their high school classes, are admitted only if they stand above the 30th percentile in the intelligence test and in the placement tests in English and algebra, and also "pass" a foreign language test. (Just what is to constitute "passing" in the latter instance is deter-

mined at present by the particular language professor who corrects the test.) If the student from the lower half of his high school class fails in one or more of these four tests, he is subject to rejection. The practice, however, is to consider each of these cases individually. The Dean of the College sometimes admits a student when other facts seem favorable.

Dr. D. T. Howard, who has been Director of Personnel since September 1926, says in a recent report:

> Students from the lower half of their high school classes who fail on one or more of the tests and who consequently must be considered individually afford us an opportunity to use some of the general information we have accumulated from previous classes. In borderline cases where the chances for success in college apparently just about balance the chances for failure, our tabulated experience with different classes often justifies us in admitting or rejecting the student. If a student stands high in some of the tests, for instance, especially in the psychological examination, he may be given favorable consideration. A failure on a placement test or the language test, it is believed, ought not to have a great deal of significance if the student ranks relatively high in the lower half of the class and makes a good score on the psychological examination.

No longer is there a minimum age for applicants to the University. A study made of the relationship between age and scholastic standing in the College shows a negative relationship between age and scholastic success. (See Table VIII and Figure 8.) Figure 8 shows that 23 per cent of the students who were less than 17 when they entered college did superior work, while only 11 per cent of those who were 20 or older when they entered college did superior work. On the other hand, only 13 per cent of the younger students made a poor scholastic showing, as compared with 32 per cent of the older students who made either minus or no grades. The line representing students who were 17 to 19 years old when they entered college falls, in general, between the lines of the younger and older students.

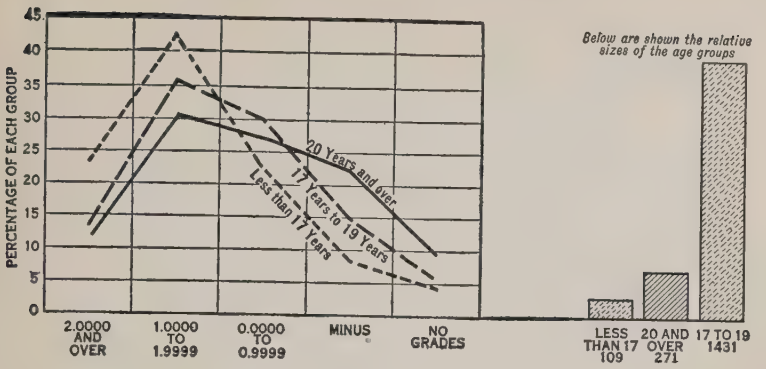


FIGURE 8

THE PERCENTAGES OF EACH GROUP OF POINT AVERAGES MADE BY STUDENTS OF DIFFERENT AGES WHEN ENTERING COLLEGE. AVERAGES ARE BASED ON THE FIRST SEMESTER OF WORK DONE BY L. A. CLASSES OF 1925, 1926, 1927

TABLE VIII

FIRST SEMESTER AVERAGES OF VARIOUS AGE GROUPS IN LIBERAL ARTS

Age at Time of Entering	Class	3.0 to 2.0		1.9 to 1.0		9.0 to 0.0		Minus No.	Avgs. %	No Grades		Totals	
		No.	%	No.	%	No.	%			No.	%	No.	%
20 years or older	1925	8	8.1	31	31.3	32	32.3	19	19.3	9	9.1	99	16.6
	1926	10	11.1	21	23.3	26	28.9	23	25.6	10	11.1	90	14.9
	1927	11	13.4	30	36.6	15	18.3	19	23.2	7	8.5	82	13.4
TOTALS		29	10.7	82	30.3	73	26.9	61	22.5	26	9.6	271	15.
17 years to (but not) 20 years old	1925	55	11.7	186	39.6	133	28.3	69	14.7	27	5.7	470	78.7
	1926	73	15.3	156	32.6	142	29.7	68	14.2	39	8.2	478	79.1
	1927	57	11.8	178	37.	152	31.4	76	15.7	20	4.1	483	79.2
TOTALS		185	12.9	520	36.4	427	29.9	213	14.9	86	6.	1431	79.
Less than 17 years old	1925	8	28.6	11	29.3	4	14.3	4	14.3	1	3.5	28	4.7
	1926	7	19.4	12	33.3	11	30.6	3	8.3	3	8.3	36	6.0
	1927	10	22.2	23	51.1	9	20.	2	4.4	1	2.2	45	7.4
TOTALS		25	23.	46	42.2	24	22.	9	8.2	5	4.6	109	6.

The use of rating scales in determining admissions has been given up—at least until a better rating scale and more satisfactory methods for using it can be devised. Dr. E. L. Clark, Assistant Director of Personnel, made an exhaustive study of the results that had been obtained from several years' use of them. His conclusions were that at least three ratings were necessary for each student in order to get an average of any validity. This was not always possible. Furthermore, ratings were not of value unless each rater could rate at least 16 persons, to get a better idea of the relativity of the qualities he was rating. Obviously, there were few raters who could be asked to rate 16 applicants for admission to Northwestern.[4]

Present Admissions Policy.—At the present time the general admission policy at Northwestern embraces the following points:

1. The various Schools and Colleges in the University have determined, on the basis of their present and immediately prospective plant, endowment, equipment, and staff, how many men and how many women students they can most adequately care for from a standpoint of the best educational development of each student.

2. The number of new students that are to be admitted is fixed in advance of each year in accordance with the number of upperclassmen there will be.

3. The process of admission is frankly one of selecting the most promising material available.

4. Quality of preparation receives more recognition than mere quantity.

5. The Dean of each College is responsible to his faculty for the admissions to his College or School. Considerable responsibility is left in his hands as to the admission or rejection of applicants. Each Dean consults frequently with the Director of Personnel as to the best way in which to exercise his responsibility.

6. An effort is made, through frequent consultation of admini-

[4] This study is reported in more detail in Chapter XII.

strative officers and through informal agreements, to keep the admissions policies fairly uniform in all the Schools of the University.

7. Intellectual achievement and promise—as determined by the most objective data available—are taken as the primary basis for selection.

8. Ratings on intangible qualities such as leadership, initiative, personality, are no longer used. Testimonials from the student himself and from others, are, however, obtained as to his purpose in coming to college, his character, his health, his interest, etc.

9. Fifteen units are required for admission to the College of Liberal Arts. The only exceptions to this rule are unusual cases of mature applicants with a definite interest and purpose, for whom the Deans have the power to set aside this requirement. The fifteen units that are required are at present distributed by faculty action as follows:

A. At least three units of English, one unit of algebra, and one unit of plane geometry.

B. Foreign language—at least two units of any one of the following: Latin, Greek, French, German, Spanish.

C. At least five additional units from the subjects in the groups listed below:

I. *English.* If the preparatory course has comprised four recitations a week throughout four years and in character has been distinctly in advance of the minimum requirement of three years, a fourth unit of credit is allowed.

II. *Mathematics.* It is recommended that the work in mathematics be extended over at least three years of the high school course, and especially that work be given in this subject in the last year. If the study of the subject has included, in addition to the minimum requirement of two years, advanced algebra, solid geometry, and plane geometry, as high as two additional units of credits are allowed.

III. *Foreign Languages*	*Units Allowed*
1. Greek	3
2. Latin	4
3. French	3
4. German	3
5. Spanish	2

IV. *The Sciences*	
1. Physiography	1
2. Physiology	½
3. Botany	1
4. Zoölogy	1
5. Physics	1
6. Chemistry	1

V. *History*	
1. Ancient History	1
2. Oriental and Greek History	½
3. Roman History	½
4. Medieval and Modern History	1
5. English History	1
6. American History	1

VI. *The Social Sciences*	
Civic Government	1

D. Additional subjects sufficient to make an aggregate of fifteen units. No subject is accepted for less than a half unit of credit, and, in general, only such subjects as are named in the above lists are considered desirable.

The distribution of the fifteen units required for admission is determined by faculty action with little or no basis other than tradition and prevailing custom. Some beginning—as reported on pages 194 ff. of Chapter XIII—has been made by the Personnel Office toward discovering whether the University is justified on

any basis other than tradition for demanding just this distribution of high school credits.

10. No one is allowed to enter with entrance conditions.

11. Northwestern is coöperating with the American Council on Education in developing a psychological examination which, it is hoped, will be better than anything available thus far for use as an entrance test in determining scholastic aptitude. At the present time the results of the psychological examination are considered a valuable supplement and check to the other information concerning each applicant.

12. Entrance standards are at present the focus of careful investigation and study. If the present policy is carried out, they will be modified from time to time with the purpose of preventing young people possessed of more ambition than ability from entering upon something at which they must fail, and of singling out those most worthy of receiving collegiate education. At present the system of selection is elastic and personal in its operation. Only in this way is it felt that the individual can be kept from being lost again in the mass. Every one applying for admission receives individual consideration and is individually selected or rejected in the light of the best judgment that can be brought to bear upon his case.

What of Those Students in Good Scholastic Standing Who Drop Out?—There is another group of students who seem entirely capable of doing satisfactory college work who, nevertheless, drop out of college. It is interesting to find out what some of the factors are that cause this group to cut short their college course.[5]

[5] It is interesting to note in this connection the results of a similar study at the University of Chicago which showed that the students there leave school for four chief reasons (aside from scholarship), these being: finances, health, home conditions, and some form of dissatisfaction. One-fourth to one-half of these will eventually enroll in other schools, while easily one-half of the group have hopes of returning to the school of their first choice. Very few definitely give up the idea of completing their schooling.—Moon, George R., *School and Society,* May 12, 1928, Vol. XXVII, p. 576.

A study was made in March, 1927, by the Personnel Department, of 96 students of the class of 1929 who withdrew from the College of Liberal Arts after satisfactorily completing one year of work.

The following information was obtained by writing to the students who had withdrawn in good standing. Replies were received from 61 students, 44 women and 17 men.

I

Causes of withdrawal listed according to the primary reasons given in replies:

Reason	*Men*	*Women*	*Total*
Financial	10	6	16
Transferred to another university	1	18	19
Transferred to N. U. Professional School	1	3	4
Family circumstances	2	4	6
Parental dissatisfaction	1	0	1
Went to work	1	6	7
Dissatisfaction with social life	0	2	2
Married	1	3	4
Health	0	2	2
TOTAL	17	44	61

II

Present occupations of the group, as stated in replies to inquiry:

In other schools		26
N. U.	4	
Elsewhere	22	
Teaching		1
Business		23
At home		7
Married		4

Twenty-seven signified the hope that they might return to Northwestern. One hoped to go to some other college.

III

Nineteen students, as shown above, transferred to other colleges or universities. The reasons given were as follows:

Financial	1
Social	4
Get away from home	3
Special courses	2
Dissatisfied with instruction	1
Live near home	4
Smaller institution	1
Dissatisfied with living conditions	2
Unclassified	1

IV

The following table lists positive expressions of satisfaction or dissatisfaction with Northwestern. In some instances more than one cause of dissatisfaction was expressed.

Thoroughly satisfied	22
Dissatisfied for social reasons	10
Dissatisfied for intellectual reasons	3
Dissatisfied for financial reasons	3
Dissatisfied with living conditions	3
Dissatisfied with lack of concrete value	1
Dissatisfied with location	3

V

Certain data are available concerning the 35 students who failed to reply to the letters of inquiry:

	Men	*Women*	*Total*
Transcripts issued (probably entered another college or university)	4	10	14
Entered other N. U. Schools	0	5	5
Unaccounted for	1	15	16
TOTAL	5	30	35

Records of the office, incidentally, show that of all women dropping out in June, whether in good standing or not, 44 were sorority and 98 non-sorority girls. This is interesting in view of the fact that approximately 55 per cent of women in the College of Liberal Arts at Northwestern belong to sororities.

Probably all of the above 96 students entered Northwestern with the intention, or at least the desire, of continuing through the entire course. Perhaps some of them might have been sal-

vaged had the work of the Personnel Office been sufficiently skillful and thorough.

This study points to the value of more intensive work with individuals in the student body, to discover and heal sources of dissatisfaction that arise from weaknesses within themselves or from some shortcoming on the part of the University.

Chapter Six

ASSISTING THE STUDENT TO ADJUST HIMSELF TO COLLEGE

Description of Admission Procedure.—It is assumed that the first step in giving special attention to the problem of the freshman is to bring together the kind of freshmen whom it will be worth while from the standpoint of the University to attempt to influence. Some of the philosophy and the experimentation that are determining the selective process have already been outlined. It might be well, however, to show some of the procedures the Director of Admissions is using at present in choosing for the College of Liberal Arts a group of freshmen who will meet the standards set up.

Admission Blanks.—When a prospective applicant writes that he is contemplating coming to the University upon completion of his preparatory work, he is furnished by the Director of Admissions with a set of blanks which he is asked to return to the Director properly filled in. These blanks are reproduced in the Appendix. (See pages 219 ff.)

No application from a student desiring to enter the University for the fall semester is accepted after September 1st. It is possible at a few institutions in this country to set the dead-line earlier than this. If the present trends continue, and if it seems desirable, it may be possible to advance the dead-line at Northwestern. At the present time the Director of Admissions has a two weeks' period before registration so that the last application accepted may be passed on carefully. By September 1st of 1927 practically every

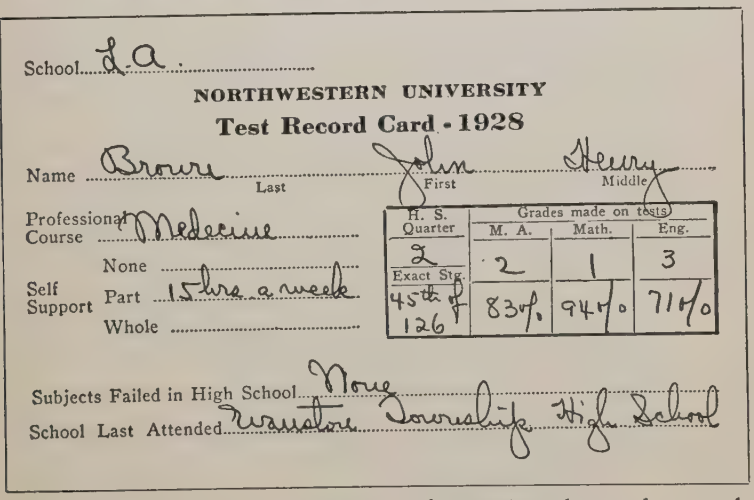
student who was to be allowed to take the entrance examinations two weeks later had been decided upon and notified.

Procedure in Selecting the Desired Number of Qualified Freshmen.—As has already been said, the number to be admitted is already set. Certain minimum standards of quality also are set. Accordingly, the problem is to select from all the applicants the required number of those who seem most to exceed the minimum standards as to quality. This might not be so difficult if it were assured that every applicant accepted for admission would eventually matriculate as a student. The experience of the Director of Admissions for the College of Liberal Arts at Northwestern has shown, however, that about 25 per cent of those who have been accepted by September 1st do not matriculate. Most of these give no indication after their acceptance that they do not intend to come. Accordingly, it is necessary to accept approximately one-third more than the number that can be taken care of. This requires a careful inventory showing the number that can be safely accepted by certain dates throughout the spring and summer.

For instance, the Director of Admissions must know approximately how many had been accepted by a certain date last year, and of those, how many finally matriculated. If there are more applicants by that certain date of this year—and the tendency seems to be for applications to be made earlier and earlier each year—he may feel safe in accepting a larger proportion than had been accepted by that date last year, particularly if the quality of those accepted is also assuredly better.

The suggestion has been made by some colleges which operate a selective system that a fee of ten or twenty-five dollars be charged an applicant to hold a place for him in the freshman class. This fee would not be returned in case the applicant were accepted and later did not avail himself of his opportunities. This method might assure more seriousness of desire on the part of an applicant to enter the institution in question.

As a convenient administrative device in determining how many should be accepted by a certain date, the Director of Admissions keeps three files, one labeled "accepted," another "rejected," and a third "pending." A card called a "Test Record Card" is filled out by the Director of Admissions for every applicant for admission who sends in his proper forms of application. A copy of this card is shown below. This card is filed under "pending" until the applicant is either accepted or rejected, when it is marked on the back with the date that the application was first received and the date when action regarding the applicant was taken, and it is then transferred to the proper file. As a card is transferred to one of the two permanent files from "pending" the applicant is notified as to the success of his application. A blue card is used for men and a white card for women.



School L.A.

NORTHWESTERN UNIVERSITY

Test Record Card - 1928

Name Brown (Last) John (First) Henry (Middle)

Professional Course Medicine

Self Support: None; Part 15 hrs. a week; Whole

H. S. Quarter	Grades made on tests		
	M. A.	Math.	Eng.
2	2	1	3
Exact Stg. 45th of 126	83%	94%	71%

Subjects Failed in High School None

School Last Attended Wauseon Township High School

Each year it is easy to determine, by sorting the cards according to the dates on the backs, the number of applicants there had been by June 1st of the year before and the number of acceptances and rejections by this date; the number by June 15th, etc.

After the Director of Admissions has finished selecting the fall group, a clerk makes a duplicate set of "Test Record Cards" for every successful applicant whose card is in the "accepted" file.

As each "accepted" student takes his entrance examinations and the results are ascertained, the squares marked "grades made on tests" are filled in on each set of cards. One of these two sets—the one with the dates on the back—will henceforth be a permanent file for the use of the Director of Admissions and the Personnel Office; the other is used as a check at the time of registration to insure that each new student attempting to register has taken all the required tests; it also serves as a source of information to the faculty advisor, to whom the new student presents it as one of his necessary credentials at registration time.

Those students who are not certified to be in the upper half of their class and from accredited high schools, are required by faculty action not only to stand above the 30th percentile of scores made by previous freshmen on these three tests but are also required to pass a foreign language test.

Provisions for Taking Tests Earlier Than Freshman Week.—In order that students who have not stood in the upper half of their high school classes may know before September whether they will be admitted to Northwestern or not, the four required examinations are given by the Personnel Department in June, in August, and again early in September. Notice of the times of these examinations is sent to all high schools in the vicinity of Chicago, and by letter to all individuals who apply early enough. There were 177 high school graduates, whose acceptance by Northwestern depended on the results of their entrance examinations, who took the examinations in the summer of 1927 before Freshman Week. There are fewer "lower half" students every year who risk taking the examinations as late as Freshman Week.

Description of 1927 Freshman Week Activities. Entrance Tests.—As can be seen from the Freshman Week Program, which is reproduced in Appendix B, entrance tests are given within the first two days of Freshman Week. By the use of extra clerical help all of these tests—approximately 2800—are graded, alpha-

betized, recorded on the two sets of "Test Record Cards," and stored away by the time the registration for freshmen begins.

Cost of Testing Program.—The total cost of all test blanks used in the summer and fall of 1927 was $262. The cost for extra clerical help used to score and record the tests before registration day was $253.54.[1] This averages less than seventy-five cents per student tested. The cost has shrunk every year.

The morning that registration for freshmen begins, new upperclass students are required to take the psychological examination. It was comparatively easy in 1927 to score and record the results of tests of the approximately 300 students who entered Liberal Arts and Speech with advanced standing by the next day after the test was given.

After the freshmen have completed the first two days of Freshman Week, which are devoted mainly to testing, one day is given over entirely to meetings and entertainment designed to give welcome and inspiration and some information regarding traditions.

Registration.—On Thursday, registration for freshmen begins. Each faculty advisor has been assigned about twenty freshmen. This assigning has been attended by some effort to give to an advisor freshmen whose interests—pre-professional or otherwise—he will best appreciate. The students' interests are ascertained in so far as possible before they come to the University, from their entrance blanks which they and others have filled in.

System of Freshman Advisors.—Each advisor is prepared for his task by having been instructed by the Dean of the faculty as to his advisorial duties, by having studied the entrance blanks of his advisees and by having at hand a bulletin of freshman courses and pre-professional requirements prepared for general distribution by the Personnel Office. In addition to this, when the fresh-

[1] This latter amount also includes the cost of taking photographs of all new students entering Liberal Arts and the School of Speech, which practice was instituted in 1924 by the Personnel Office and has been in its charge ever since.

man comes for his first interview with his faculty advisor he brings with him his "Test Record Card" which has on it a record of the results of his entrance tests.

There has been an effort to assure intelligent attention to each individual freshman at the time of his registration. Advisors are expected to do more than perform the mechanical duties of assigning sections and checking courses. Nor are the duties of advisors with regard to their advisees considered complete when the student has completed his registration and paid his bill. More will be said of the advisorial system in a later chapter.

Other Activities of Freshman Week.—Friday and Saturday of Freshman Week are given to conferences, physical examinations, and meetings of various kinds. The Friday morning meeting of the 1927 program was devoted to a discussion of some of the rules of the University for which every student is held responsible, a talk on how to study, one on the values to be found in college, and one on the necessity for budgeting time.

The talk on time budgeting was based on figures collected in student interviews by the Personnel Office. Of the approximately 25,500 hours that the average person is allowed for a college degree (this counts four years as the average, exclusive of vacations) the freshmen were told that about one half, or 12,750 hours, are spent in eating and sleeping and transportation to and from the campus. From this number must be taken 2584 more that are scheduled classroom hours. There are then approximately 10,166 hours in all, 2541 hours each year, or only approximately 67 hours each week that must cover study, exercise, leisure, and extra-curricular and social activities.

By the end of Freshman Week, not only has some valuable information been acquired by the University concerning each freshman, but also it is hoped that all freshmen are comfortably established in approved living quarters for the year; that they know their way about the campus and will be able to find their lecture rooms without difficulty when classes commence; that they

are somewhat informed as to the important rules and traditions; that they know some faculty members, some upper-class students, and some other freshmen; that they have completed their entrance tests; that they have had at least one conference with their freshman advisor and received sound educational counsel from him; that they have been pleasantly entertained throughout the week; and that they are beginning to have some idea of "what college is all about."

Orientation Courses for Freshmen Not Yet Established.—There has been some feeling on the campus that it would be desirable to follow up Freshman Week with a special orientation course that would be given freshmen throughout the year. With the exception of voluntary "Guidance Groups" under the direction of upper-class students, nothing in the nature of orientation in required courses has been attempted with freshmen. The feeling of the Personnel Office is that an orientation course, to be of real merit, must be worked out to fit the local situation; it must be built up to use to best advantage the faculty leadership available; and it must be carefully balanced and administered in order not to be just another such jumble as the ordinary curriculum is now often felt to be. Until these conditions can be met with entire success, no "half measure" course will be offered.

Freshmen Dealt With as Individuals.—Most of the emphasis in work with freshmen has been, therefore, on working with them as individuals. An attempt has been made to gather significant information about each student, and this information has been used by faculty advisors and special counselors on the staff of the Personnel Office in personal interviews that touch upon the educational, vocational, and personal problems of each freshman as an individual. More information concerning the way that the special counselors on the staff of the Personnel Office operate will be presented in Chapter IX.

Chapter Seven

COÖRDINATING INFORMATION CONCERNING THE STUDENT

Efforts Toward Furthering the All-around Development of the Individual Student.—Much has been written and said about the importance of not losing sight of the individual student in the mass education that is becoming more and more prevalent. Merely to realize the importance of not losing sight of him in his physical and social, as well as academic aspects, however, does not take care of the situation which arises as a result of having such large numbers of students collected in one place. In addition to an appreciation of the problem and the proper point of view with regard to it, it is necessary to adopt new techniques to insure that the individual will be adequately provided for.

Coördination of Specialists' Efforts and Data Necessary.—With the growth in numbers of specialists, each one capable of dealing with some aspect of the students' personalities, there has been a lag in the coördination of the work of these specialists and of the data which they have collected.

Now Organized into Significant Relationships by the Personnel Office.—When the student applies for admission to Northwestern University, as outlined in the last chapter, he is required to submit information concerning his educational history, physical condition, family background, vocational experience, high school activities, and his interests and future plans. The University physician and the physical education instructor discover further facts. The general psychological and subject-matter tests which he takes during Freshman Week reveal still more facts concerning him.

As he works in classroom activities, his college instructors form opinions regarding his academic ability and achievement. His classmates make informal but important judgments concerning his personal attractiveness and leadership qualities when they elect him to offices of one sort or another in student activities. The Deans, the chairman of the scholarship and loan committee, or some other administrative officer may have dealings with him. His faculty advisor or some other counselor may possess information of much significance when correlated with other facts concerning him. But until the Personnel Office was organized, and undertook, as one of its functions, to become an office for coördinating records, all these pieces of information were scattered about in various offices and did not come into a working relationship with one another.

The bringing together of the specialists' data around the student as a unit has proved one valuable technique in individualizing the educational process. The data, when assembled, have, by reason of their relationships, taken on a significance which they did not possess when viewed merely in detached settings. New resources for case studies and the development of case technique have come into being. New possibilities for research have been opened up.

The Use of Cumulative Records for Every Student.—As each student enters Northwestern, the Personnel Office starts a Cumulative Record Folder which attempts to coördinate most of the important information about him which the University possesses. The record blanks which the Office has devised have been changed nearly every year: data which seemed, upon investigation, to lack significance have been omitted from the blanks; occasionally some change has taken place to simplify clerical work; at times it has been found wise to add a few items because they have seemed important, or because some one has desired to test their importance.

The blanks in the form in which they have been used in 1926-27 and 1927-28 were discarded entirely in 1928-29 in favor of the

Cumulative Record Folder prepared by Wood of Columbia University and Clark of the Northwestern Personnel Office under the direction of a special committee appointed by the American Council of Education. The card, as it appears in the Educational Record Supplement for July, 1928, is reproduced. Directions for making entries on this record will be found in the July, 1928, Supplement, pages 39 to 52 inclusive. Both the card and the directions in their present form are tentative, but they afford the colleges a promising field for experimentation.[1]

It may be of interest at this point, although it entails some digression, to explain how the information concerning a student's extra-curricular activities which are entered on the Cumulative Record Folder is collected and kept up to date.

One member of the staff keeps a "Student Activities Book." Names of students are grouped in this book by social fraternities and sororities. For those students who do not belong to social fraternities a file of cards is maintained which can easily be kept in alphabetical order, or which can be sorted according to extra-curricular interests into any groups desired.

The pages of the large book known as the "Students' Activities Book"—each page containing the records of one organization's members—contain columns for the following items of information: names of active members and names of pledges; dates of pledging and dates of initiation; the name of the school of the University in which the member is registered and whether it is his first, second, third or fourth year of college work; the student's personnel number; a record of his entrance tests; his academic average by semesters; whether he lives at home or in his fraternity house; his activities each semester in athletics, publications, fraternity offices, Christian Associations, student government; other activities; honorary organizations; amount and kind of work for compensation; general (such as interests, talents, etc.).

The cards for those who do not belong to social fraternities

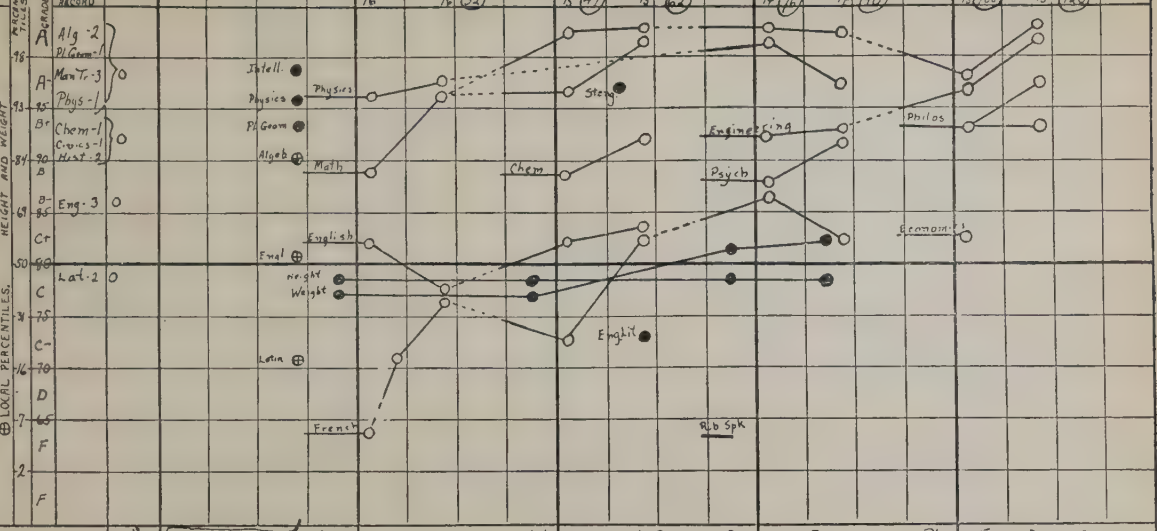
[1] This card and the instructions for its use are in the process of revision and will be available from the American Council on Education.

LAST NAME	FIRST NAME	MIDDLE NAME	NICK NAME	DATE AND PLACE OF BIRTH	SEX	COLOR	MARRIED?
Smith	Frank	Albert		1-15-04 Chicago, Ill.	(M) F	(W) C	M (S)

PREFERENCE (MEMBERSHIP)	RELIGION	HIGH SCHOOL LAST ATTENDED	TYPE	GRADUATED?	DATE	H.S. RANK	INDEX NUMBER AND LETTERS
Methodist		Lake View	Public	(YES) NO	June '22	72/396	

H&S	T-t	Eng	Fr	SSc	Math	Sc.
1	A-	C+	C-	X	B+	A-

YEAR	1919-22	1922	1923	1924	1925	1926
AGE	14-18	18	19	20	21	22



ACHIEVEMENT TESTS AND SCHOOL MARKS
● STANDARDIZED TESTS LETTER GRADE
⊕ LOCAL PERCENTILES. HEIGHT AND WEIGHT

PHOTO

COURSES TAKEN. CATALOG NO. UNITS OF CREDIT	Thorndike Intell 102 Phys$_C$ -5	Phys$_A$ -5	Math$_{B_1}$	-3 Math$_{B_2}$ -3	Phys$_B$ -3	Phys$_{B_2}$ -3	Phys$_{B_1}$ -5	Phys$_C$ -5
	CAB Physics A$_1$ 81 Math$_A$ -3	Math$_A$ -3	"	-2 " $_{C_1}$ -2	Math$_C$ -3	Math$_{C_2}$ -3	Math$_{C_1}$ -2	Math$_{C_2}$ -2
	CAB Alg A$_2$ 26 Eng$_A$ -3	Eng$_A$ -3	Chem$_{A_1}$	-5 Chem$_A$ -5	Psy$_A$ -3	Psy$_A$ -3	Phil$_{A_1}$ -3	Phil$_{A_2}$ -3
	CAB Pl Geom A$_3$ 49 Fr$_{AA}$ -5	Fr$_{AA}$ -5	Eng$_{A_2}$	-2 Eng$_{A_2}$ -2	Engin$_A$ -3	Engin -3	Econ$_{A_1}$ -3	Phil$_{A_2}$ -3
	CAB Engl A$_4$ 173		Fr$_{A_1}$	-3 Fr$_{A_2}$ -3	Fr$_{B_1}$ -2	Fr$_{B_2}$ -2	Engin$_{A_3}$ -2	Engin$_{A_4}$ -2
	Allen Latin A$_5$ 36							
	Provisional "F" in French raised to C- by exam taken during 2nd Sem.			Strongquist Mech. Test.				
DISCIPLINE	Called to Dean's office for overcutting cuts excused by doctor's certificate			English Literary Information Test.				
ADVISER	Tantling	Tantling		Bayle		Bayle		
SIGN	R P Boyd (Asst)	R P Boyd (Asst)		M P Case (Asst)		M P Case (Asst)		
NAMES OF COLLEGES		Osceola	Osceola	Osceola		Osceola		

27 REASONS FOR LEAVING							B.S. Degree
28 IRREGULARITIES IN COURSE							
29 YEAR		1918-22	1922	1923	1924	1925	1926
30 AGE		14-18	18	19	20	21	22
31 ACCOMPLISHMENTS UNUSUAL EXPERIENCES		Operated Amateur Radio Station	Constructed "Perpetual motion Machine"	Made electric motor of second-hand parts	Made a 40ft Yacht during summer. Reads French Science Journals	Collected 500 pictures, drawings and diagrams illustrating history of ship building	Made perspective drawings of machine designs which are considered excellent.
32 CLUBS, FRATERNITIES OFFICES				Math. Club Member		Engineering Professional Frat. Treas. of Math.	Club.
33 EXTRA-CURRICULAR EXPERIENCES	ATHLETIC	t	s	t	h	h	
34	HOURS PER WEEK		2	1	1	1	
35	NON-ATHLETIC	H.S. Radio club	Nature Kodak Club.	Editor "Steel and Stone Bridges" Section of Kodak Club's Year Book	Contributed pictures for article on "Wild Life on the Lake Shore"		
36	HOURS PER WEEK						
37 VOCATIONAL EXPERIENCES	TYPE	Clerk in father's store-odd jobs	clerked in father's store sat. and after school. Telephone linesmans Ass't	Odd jobs in father's store Ass't Engineer on Great Lakes Steamer	Ass't operator in Radio Station. (Father's store in winter)	Clerk in Elec. Store on Sats and evenings. Eng Ass't on S. Amer. Steamer	
38	DURATION.		Father's store in winter. Linesman Ass't 3mo. Summ	3 Mo. Summer	3 mos. Summer.	Cruise in Summer.	
39	PAY PER WEEK		$20. as linesman's Ass't				
40	HOURS PER WEEK		20-during School Yr.				
41 SUPPORT OF SELF AND DEPENDENTS		1/4					
42 LOANS AND SCHOLARSHIPS							
43 STUDY CONDITIONS & HRS. STUDY PER WK.			Has separate room at home for study. 28 hrs		30 hrs.	Uses School library more than formerly. 26 hrs.	30 hrs.
44 SUMMER EXPERIENCES			Tel. Linesmen's Ass't 7 mos.	Worked on Great Lakes.	Built Yacht Worked in Radio Station	Went To S. Amer.	
45 EDUCATIONAL PLANS			Uncle, who is a reporter, strongly advises becoming Writer.	Wants to be a writer but is undecided	Engineering (7)	Elec. Engin.	Post Grad in Electrical Engineering
46 EDUCATIONAL SUGGESTIONS		L.A. College			Engineering Elec. Engin.		
47 VOCATIONAL & PROFESSIONAL PREFERENCES		Writer	Writer	Writer	Undecided—longs to be writer	Elec. Engin.	
48 INTERESTS REPORTED		Radio	Writing	Math.		Math. Engineering	
49 PHYSICAL DISABILITIES			Slightly deaf				
50 HEALTH							
51 MENTAL HEALTH				unhappy—broods over failure in French & low mark in English	Is more tolerant of giving up writing as life work	Reconciled to giving up Writing Enthusiastic about Engineering	
52 SOCIAL ADJUSTMENTS AND HOME CONDITIONS			Seems to know very little about campus life		Social contacts are in home community. Has very few acquaintances		Is still relatively unacquainted on
53 COMMUTING TIME. HRS. PER WK.				17			

contain information concerning entrance tests, academic grades, place of residence, and extra-curricular activities. It has not been found practicable to include as much information as for the fraternity groups, since thus far it has not been possible to do such effective group work with other voluntary student groups as with the social fraternity groups.

The method of keeping the Book and the card file up to date has been this: At the beginning of each semester the Personnel Office sends to the social fraternities and to all other student activity groups blanks on which they are asked to register information concerning the items mentioned above as found in the Student Activities Book, with the exception of test scores and academic average which are obtained from other records. When these blanks are returned to the Office, the information they contain is entered in the Book and on the cards. This means that every member of a social fraternity will have some information regarding him entered in the Book, and that there will be a card started for every non-fraternity student mentioned by a student activity group. Every day thereafter the daily publication is scanned for items concerning students. All students mentioned as participating in some activity, or as elected to offices or membership in groups of one sort or another, have appropriate notes entered in the Book or on their cards.

This system means an hour or two of clerical work every day keeping the records entirely up to date. The effort is repaid, however, by the fact that the Office has a complete record of what every student is doing aside from academic work, has a detailed picture in objective records of "Who's Who" on the campus, and also has in very usable form information about student groups which are eager for help as to how to raise their group scholarship, how to deal with some difficult member, how better to administer the point system, etc.

It is comparatively easy, when the Cumulative Record Folders are being brought up to date, to copy into the appropriate boxes,

from the Student Activity Book and from the card file, information concerning the extra-curricular activities of each person.

Information about academic progress is brought up to date on the Cumulative Record folders from records of the Registrar at the end of every semester. This information is supplemented during the semester by including in the folder slips sent to the Office by the Registrar which report information received from faculty members regarding students doing work below a "C" grade.

Every folder eventually contains several sheets: a rating scale of furtherance-hindrance factors affecting scholastic achievement which the student fills out while he or she is waiting to be interviewed, and other sheets called "Interview Sheets," on which are registered the interviewer's impressions and all facts that came out in the interview that cannot be fitted into any form. These Interview Sheets are often invaluable for a real understanding of any individual case, but they are understood to contain the interviewer's *impression* only; they are often quite subjective and cannot be considered to have much objective value. These sheets are, therefore, highly confidential and are only rarely shown to any one not actively connected with the Office.

Use of the Information Contained in the Summary Record.— When all this information regarding a student is centralized, it can readily be seen that it constitutes a valuable source of information for a faculty member, committee, or administrative officer who may require help in deciding what course of action to pursue with regard to some student who is demanding his attention. And this information is used constantly: by Deans who must take disciplinary action; by committees responsible for making awards of one sort or another; by the committee which takes action on students who are failing scholastically; by student committees responsible for making nominations for various offices; by faculty advisors; by those whom parents come to consult regarding the progress of their sons or daughters; by church pastors or religious Secretaries who need more information in order really to help

some student; by the athletic committee when it is in doubt as to whether a student can carry his program of academic work satisfactorily and still devote as much time as is necessary to making an athletic team; by individual faculty members puzzled about why some student does not do better work or why some member of his class, endowed with a good mind, goes to pieces on an examination; and by fraternities and other student groups which are concerned with recruiting membership or aiding some member who seems to need special help.

It is again pointed out that the whole Cumulative Record Folder is by no means simply turned over to any and all who desire information concerning some student. Everything but the Interview Sheets is, as a rule, freely available to all faculty members and administrative officers. The process is usually this: A member of the Personnel Staff finds out what particular sort of information is needed regarding a student, decides that the purpose is legitimate for the interests of the student himself, and then consults with the person desiring information, using the coördinated records as his source of reference.

It is the desire of the Office to make the information which it possesses easily available at all times for use in the best interests of the student. Always balanced against this desire, however, is the strong realization that much of the information which the Office possesses is of a very confidential nature, and that it must always be treated as such.

Other Methods for Coördinating Personnel Service and Research.—As outlined above, coördination of the facts concerning each individual student which are contributed by various personnel agents throughout the University—be they physicians or faculty advisors—is one technique adopted for the purpose of individualizing and making more effective the broad educational purpose which the University has with regard to each student. In addition to this, the Director of Personnel attempts to promote among the various specialists, through individual or group con-

ferences, a well-rounded idea of the complete program of personnel for the student body and the part that their expert service plays in it.

This may be done by calling together a committee composed, perhaps, of a health specialist, the Deans of Men and Women, a professor of sociology versed in the case method study, the psychiatrist, a research psychologist, a statistician, some church minister interested particularly in the religious life of the students, a business man interested in the vocational problems of college graduates, and a graduate student who has until recently been active in undergraduate life in all its phases. With this group the Director of Personnel may discuss the method of interview which the members of the staff use. Or he may discuss the plans for a study which the Office is about to begin. Or he may discuss the philosophy of personnel service.

Great value has been found in such conferences; not only does enlightenment take place as to what the Office is attempting to do, but also the Director himself receives assistance and inspiration. It is possible that the whole idea of what a University education should be able to accomplish for a student becomes better clarified in the meeting of such minds, all considering what will best serve the interests of students in strengthening and developing them as total personalities. Certainly, by just such methods, the coördination of all separate activities throughout the University in the interests of personnel service and research is promoted.

Chapter Eight

COUNSELING AGENCIES

Senior Members of Student Groups.—Various members of the University in an official or unofficial capacity give counsel of one sort or another. Practically all social fraternities have a system of senior advisors who are expected to guide the freshmen who become members of their groups. About 50 per cent of all freshmen, therefore, have the benefit of the sort of advice that senior fraternity members are able to give them.

Big Sisters.—In addition to this, every freshman girl is provided by the Women's Self-Government Association with a junior or senior advisor who is expected to look after her and introduce her into the complexities of university life.

Dormitory Counselors.—The dormitories have adopted a system of preceptors who act as friendly advisors. The Personnel Office has recently been supplying the preceptors with information regarding the students who live in their houses. A sample is appended (see pages 80 and 81).

Most of the items are self-explanatory. "Entrance scores" are copied from the Cumulative Record Folder. This four-figure number means by its successive digits: high school quartile, quartile standing on the entrance psychological examination, quartile standing on the placement test in mathematics, and quartile standing on the placement test in English. When "A. S." is substituted for the first digit, it means that the student entered Northwestern from some other college with advanced standing. In this case he did not take the placement tests in mathematics and English because these are required only of freshmen, so the third and fourth

Room	Name	Age	School	Entrance Scores	Point Average	Warning Notices	Activities	Home Address
101	A	21	L.A.	1214	1.53 1.89 1.11		Dramatics	Omaha, Neb.
103	B	20	L.A.	1232	1.18 1.94 1.69		Tennis Debate	Detroit, Mich.
105	C	22	Pre-Med.	1334	1.20 1.14 1.52			Philippine Is.
104	D	21	Pre-Med.	1333	1.40 1.21 1.51			Kenosha, Wisc.
108	E	20	L.A.	1335	1.84 1.63 2.10		Tennis	Detroit, Mich.
202	F	18½	L.A.	A.S. 200	1.65 1.00		Band	Chicago
102	G	20	Com.	3222	1.41 0.00			Chicago
204	H	22	Eng.	2334	.33 1.31 .06 .82	English	Football Basketball	Chicago
107	I	19	Com.	2353	.93 1.27			Des Moines, Iowa
203	J	19	Pre-Legal	0213	2.62 2.84		Debate	Woodstock, Ill.

Mother	Father	Nationality	Denomination	Health	Work for Compensation	Interests	Remarks of Dormitory Counselor
X	Deceased	Swedish	Lutheran	O.K.	None	Debate Forensics	
X	X	American	Congregational	O.K.	None	Tennis Some Track	
X	X	Filipino	Catholic	O.K.	None	?	
Deceased	X	American	Jewish	O.K.	None	Medicine	
X	X	American	Christian Scientist	O.K.	None	Class activities Outdoor life	
X	X	German-American	Lutheran	O.K.	25 hours	Music, worked through H. S.	
X	X	American	Methodist	O.K.	None	Class activities Journalism	
X	X	American	Catholic	O.K.	None	Athletics	
X	X	American	Methodist	?	None	Journalism	
X	X	American	Episcopalian	O.K.	10 hours	Traveling	

digits are zeros. When the first digit is a zero it means that the student entered as an unclassified student or from an unaccredited high school and was admitted either by examination or by special permission from the Dean.

Some training is given these dormitory counselors. The Deans of Men and of Women meet with them at frequent intervals to discuss with them their problems. The psychopathologist who is a member of the staff of the Personnel Office talks to them occasionally as a group concerning problems of mental hygiene. Frequently one of the dormitory counselors comes to the Personnel Office for consultation concerning some student who seems particularly to need help of one sort or another.

In addition to these advisors, there are faculty members who by virtue of their interest in students frequently give advice.

Efforts are made to bring students and faculty into closer social contact through weekly luncheons for all faculty and men students who care to attend. Topics of interest to men students are discussed informally and an effort is made to have good food served.

Faculty Advisors.—In Chapter VI, mention was made of a deliberate system of paid faculty advisors. As already stated, an effort is made to select those men and women who seem to have some qualifications for advising. They advise only about twenty students each. They are given instruction for their duties by their Dean. Their duties are not finished when their advisees are registered for their academic work for the semester; they are expected to follow them through and have occasional conferences with them with regard to their educational progress. Any special information which the Personnel Office receives concerning a student, such as low grades, is relayed immediately to his faculty advisor. In such cases the advisor is expected to call the student in for special consultation and assistance, if he does not come of his own volition.

This system of faculty advising is superior to the old system when every faculty member was drafted for advisory service,

regardless of whether he despised advising or was equipped for it by temperament and information. However, a recent check-up by the interviewers of the Personnel Office reveals the fact that there is still possibility for incorrect or insufficient academic advising by these faculty advisors.

Cases of Insufficient or Incorrect Academic Advising.—A memorandum prepared by a member of the staff of the Personnel Office is as follows:

In order that we might have more definite data on which to base any conclusions as to the number of cases that are not correctly advised, members of the staff have kept a record of the cases of poor advice that have come to their attention in interviews this fall.

We assume that in some of these cases the students themselves have twisted the advice that was given them. In a few cases they may have done so deliberately in order to excuse themselves for some irregularity. In many instances, however, their troubles are clearly due to ignorance or carelessness on the part of the advisors of these students. Some of the cases follow:

Case 1.—A sophomore girl transferring here needed a *laboratory* science to meet a requirement. She was put in Economics A by her advisor. She is not doing well in it and wishes, since she has found out it is not a requirement, she had taken something else until some laboratory sciences were open. She feels she was incorrectly advised and is still more "peeved" because her advisor who signed her for the Economics is an instructor in that department.

Case 2.—A sophomore girl working for a B.S. degree (having had no Latin or Greek in college) chose Art for a major. This was approved by her advisor. She now discovers that Greek B2 is required for a major in Art. Greek B2 has as a prerequisite, either Latin A or Greek A. This student is planning to be a landscape gardener, has done a good deal of work in Botany and, as stated above, is working for a B.S. degree.

Case 3.—One advisor told a sophomore girl that Astronomy would not satisfy the science requirement as it was not a laboratory science.

Case 4.—Girl with sophomore standing. This girl entered with

a condition in language. She took some more Spanish (she had had some in high school) to try to make this up. She flunked the second semester of college Spanish. She then talked with her advisor who told her not to bother to repeat the second semester of Spanish if she did not want to, but to start French instead. Now she discovers, after having taken a year of French, that instead of losing only five hours to meet her condition, as she would have, had she repeated Spanish, she will have to lose the whole ten hours of French. She is going to be crowded to make her hours for graduation anyway and cannot possibly graduate in another year if she has to lose ten hours.

Then, this fall when she was making out her schedule, her advisor signed her up for French AB after she had had French AA here in college. She discovered a few weeks after school had started that she could not get credit for French AB. Immediately she added Art B2 to her program to get more hours and has decided to go on and audit French AB this semester in order to be better prepared to take French A next year as she must do to meet the language requirement for the B.S. degree.

She says there seems to be no general agreement about B.S. students being able to major in Art. This girl wanted to major in Art and was told that she could not on account of not having had Latin or Greek, one of which is essential as a prerequisite for a course in the Greek department that is the part of an Art major.

This girl is much disgusted with the lack of a good advisory system here. She cannot understand why those who are supposed to do the academic advising—"the only ones there are to do it"—should not know more about it.

Case 5.—This sophomore boy is the victim of most unfortunate advising. He entered the second semester of last year as a freshman. He carried fifteen hours of work that semester: the first semester of freshman English, Mathematics A2, the first semester of Botany. He is a pre-commerce student, planning to enter Commerce School a year from this February. This fall he was signed up for Economics AA, a course which is not required for entrance to Commerce School. Then, after his advisor had put him down for this course, it appeared that he would be unable to take his second semester of French

and so his advisor signed him up for German. Then there was a further conflict so that he could not get in the rest of his year of Botany, so his advisor signed him up for Chemistry instead. Some of these courses do not carry credit for one semester only. For instance, one must take a full year of German and French to get credit. No credit is allowed for one semester's work of the first year. So, in order to get credit for the work which he has undertaken, he has to take 20 hours more after this semester to finish his science and language. Besides this, he has to take two more courses in Economics to meet the Commerce requirements. If he is held to the L.A. English and Physical Education requirements he will have much more work than he needs to get into Commerce. After school had been in session for only a few days he found that he could have taken French quite as well as German, but he was not told by any one that he could then change his registration.

This case would not be so serious were it not for the fact that the boy's father has recently filed a plea of bankruptcy and the boy must earn a large share of his expenses. It seems unfortunate that he should have to complete 73 instead of the 60 hours required to enter Commerce merely because he was poorly advised. It will be more of a drain than necessary if this student prepares for Commerce in the usual length of time and works outside in addition.

Case 6.—One student was registered by her advisor for Astronomy A, although she had not had the prerequisite Trigonometry. She was in the course a week when her astronomy professor discovered the fact; and so, at his suggestion, she dropped the course. She had to register then for a five-hour science, which makes her schedule heavier than seems wise for her to attempt to carry.

The academic aspect of the counseling that the faculty advisors are expected to do has been dwelt on at such length because they are considered, after their training, to be expert in technical advising, and their advice on academic matters is not thoroughly checked by any one else until several weeks of the semester have elapsed. It seems from the informal investigation made by the personnel staff interviewers, however, that the academic counsel

given by faculty advisors is not entirely accurate, and that occasional students suffer as a result.

It is hard to determine how effective other kinds of counsel are which are given by faculty advisors. As nearly as can now be determined, vocational counsel is not often attempted by the faculty advisors of underclassmen. The attitude seems to be that when the student chooses his major subject in his sophomore year he will receive all the vocational counsel necessary from the professors under whom he will do most of his work. Let him wait until then with his vocational problems, and absorb in the first two years as much pure cultural education as possible.

This is not the invariable attitude of all advisors; but most of the students do not depend upon their faculty advisors as much as was hoped for by those responsible for the inauguration of the faculty advisorial system.

Deans and Their Assistants.—The Deans and Assistant Deans and Deans of Men and Women act as general counselors to students, but they have other administrative duties that demand much of their time.

Special Interviewing Staff in the Personnel Department.—An attempt has been made, therefore, to supplement the efforts of all these counselors by the establishment, under the supervision of the Director of Personnel, of a special staff of interviewers selected because of apparent aptitude and interest, and trained to make contacts, offer information, and assist students in making adjustments. The operation of this system of special interviewers will be described in the next chapter.

Chapter Nine

THE COUNSELING SERVICE OF THE PERSONNEL DEPARTMENT

The Staff.—A staff of approximately eight special interviewers has been maintained by the Personnel Office. These have been chiefly young graduates who have the necessary background in psychology, sociology, statistical research, and mental and physical hygiene, and who are familiar with the campus and its traditions, and interested in individuals. They are trained in the technique of interviewing after becoming members of the staff, and meet weekly with experts for special instruction.

The Scope of the Work.—The program of special interviews for the past five years has included an interview of at least a half hour with every freshman and sophomore student in the College of Liberal Arts and School of Speech, an interview with all students (juniors) entering the Evanston School of Commerce from other colleges, and with all upperclassmen in Liberal Arts, Speech, Education, or Music who may seem to need some special counsel. Seniors of the College of Liberal Arts and Commerce are invited by special letter to consult the Office about their future work.

Beginning with the fall of 1927-28, a revision has taken place in the interviewing program. The new Director of Personnel, after a year of active work in connection with the Office, felt that the sophomore interviews were in many cases unnecessary—at least that they did not repay the large amount of money they cost the Office. Accordingly, he has introduced the practice of interviewing only those sophomores who showed, during their freshman year, some irregularity, or who, because of precarious scholastic

condition or reference by some professor or fellow student, seem to need special help.

Program for Interviews on Evanston Campus During First Semester 1927-28.—The interviewing schedule for the first semester of 1927-28 was as follows:

A. All freshmen.

B. Of sophomores, juniors, and seniors, selection made on following basis:

1. Those who are on probation, both first and second semesters of probation. The Registrar's office provides a list of these people.

2. Those who have high test scores but have been doing just average or poor work.

3. Those who have low test scores but are doing good work.

4. Those who are doing outside work which pays for more than incidental expenses.

5. Those who have mention in their folders of any sort of difficulty or conflict which would make follow-up advisable.

6. Those who have "follow-up" cards in the files for any reason whatsoever.

7. Those whom professors refer to this office or who come of their own accord. Special emphasis is placed on this part of the work.

Extension of Work to Chicago Campus.—Another change introduced in 1927, following the establishment of an Office of Personnel on the downtown campus of the University during 1926-27, is a wholesale program of interviewing all students in the Chicago School of Commerce. The main purpose of these interviews is to find out who are the students attending the School; how old they are, what their vocational and educational experience has been, what they want by their further study, etc.—in short, to

make a careful survey of the student personnel to discover with what sort of material this professional School has to deal.

The interviews given by the Evanston Personnel Office, which have been developed to a finer point than the survey interviews on the Chicago campus at the present time, will next be discussed.

Procedure Followed in Interviewing Program on the Evanston Campus.—Men students are interviewed on two days a week; women on two other days a week. Students are requested by mail to come to the Office on one of two days. If the first request is not heeded, a second card and then a third card are sent. If there is no response to the third card, the Dean of the College sends the student a letter telling him that a call at the Personnel Office must take precedence over all other academic appointments. In this way, with the exercise of compulsion in not more than a dozen cases, all but a very few students who are on the schedule to be interviewed come to the Office at least once during the year for an interview which lasts from one half hour to two hours.

When the student enters the Office he is met by some member of the staff who ascertains who he is and that he is one of those scheduled for interview. This staff member then hands the student a leaflet, the content of which is shown on page 90, and asks him to check the sheet marked "Rating Scale of Furtherance-Hindrance Factors Affecting Scholastic Achievement," reproduced on pages 92 and 93. These two sheets have several virtues in that they give the student something to do if, for any reason, he cannot be interviewed immediately; they also give him information which he may be glad to get as to the purpose of the interview; they prepare him to some extent for the interview by assuring him that he is not to be put through any unpleasant ordeal; and the Rating Scale starts a process of introspection which is helpful for the interview.

Meanwhile the staff member draws the student's Cumulative Record Folder from the file.

THE PERSONNEL DEPARTMENT

"Before all else . . . the individual: his welfare, his opportunity for self-development."

NORTHWESTERN UNIVERSITY, UNIVERSITY HALL 17

What is the "Personnel Department?"—Northwestern University hopes that every one of its students may be able to utilize its many facilities in the way best suited to his needs. The primary object in all education is the development of the powers and capacities of individual persons.

But the organization of a university is complicated; its curriculum is varied and confusing; its regulations are complex. The student often needs orientation. Special information is wanted, adjustments are called for, advice is required.

The Personnel Office has been established as a special agency to assist students in making the most advantageous use of the facilities that Northwestern has to offer. We represent the "student point of view" at all times; we have no obligations except to students.

How Can We Be of Help to You?—The Personnel Office is glad to do anything that it can to help you make your college experience a period of development and growth in anticipation of your future life.

Our office is the center for the coördination of all agencies within Northwestern University engaged in student service or record keeping, and of all agencies employed in educational and psychological research. Our office attempts to maintain contacts with individuals and groups of students, faculties, religious institutions and business organizations.

Every person in our office is your friend, interested in you as an individual, and willing and glad at any time to talk or advise with you concerning any problem or question that comes to your mind.

How Can You Be of Help to Us?—In our interviews we call for information of various kinds. You can help us by trying to make your statements as accurate as possible.

The facts which you give us are used in various ways to accomplish various ends. Never doubt, however, that all of our efforts are directed toward securing the best welfare of individual students: we have no other aim.

Such purely personal information as we have concerning you is handled confidentially by this office for your own advantage. Your interests are protected carefully at all times.

We ask your coöperation in our work.

When an interviewer is free, he looks over the student's Cumulative Record Folder in order to become familiar with all the information it contains, and then invites the student into an interviewing booth.

Time Distribution. Educational Progress. Outside Work and Finances.—The interview may start with a discussion of the way the student is budgeting his time. This may lead to a discussion of educational progress through estimating how much time the student is giving to study. The standing of the student in high school and tests, together with any reports that the folder may contain on educational progress in college, are considered in this connection. Or the time distribution may point more immediately to a discussion of outside work for compensation, if the student is earning part of his expenses. This opens the way to a consideration of his financial condition.

If the interview has not opened directly with a discussion of the Furtherance-Hindrance Rating Scale, this scale can be used in the discussion of educational progress. A check in the right-hand half of any of the factors may be a significant "lead."

Vocational Objectives.—From educational progress, it is an easy step to vocational objectives. The interviewer has before him some information about the student's vocational objectives at the time of entering college. Often the student is glad to have advice as to articles or books relevant to his vocational interest. Occasionally the interviewer can arrange an appointment for the student with some practicing members of the vocations in which the student is interested, or with some faculty member.

Summer Work.—A discussion of summer work may lead to a consideration of vocation. The student may be using his summers wisely, or he may be working hard and not earning much money at something which has nothing to do with his vocational interest, and which seems to have nothing else to recommend it. Occasionally, in interviews with girls one opens up areas of family conflict in a discussion of summer work: the girl may

NORTHWESTERN UNIVERSITY

No.....

Rating Scale of Furtherance-Hindrance Factors Affecting Scholastic Achievement

Name ..... **Class**..... **Date**.....

INSTRUCTIONS FOR MAKING OUT THIS REPORT: Indicate your rating in each factor by placing a check (✓) on the line where you think it ought to be. For instance, if in Factor I, you think that your health is somewhere between "Not especially good nor bad" and "I have some cause to complain of my health," put your check somewhere between these two points.

FACTORS

I.

Consider your health as affecting your studies: Is your health always good and conducive to vigorous study, or does it interfere with your work?

Excellent health, sound and vigorous	My health is better than average.	Not especially good nor bad.	I have some cause to complain of my health.	Bad health is a serious handicap to me.

II.

Is the place, or places where you do your studying ideal for the purpose, or are you distracted or interrupted to an annoying degree? Are you well satisfied, do you think that you are fairly well placed, or have you a great deal of distraction to contend with?

Ideal.	Generally favorable.	Tolerable.	Rather unsatisfactory.	Highly distracting.

III.

Do campus activities contribute to your success as a student, or do they engage your time and interest in such a way as to interfere seriously with your studying?

I consider my program ideal.	Rather good than bad.	Neither very helpful nor very harmful	My studies suffer some.	Very distracting and injurious to college work.

IV.

Are you able to arrange your time so as to provide regular hours for study? Or are you prevented from keeping to a regular schedule because of conflicts with duties and engagements that cannot be avoided?

My program can be arranged as I please.	I can always arrange for studies by giving some thought to my program.	Other matters interfere frequently to prevent me from keeping to a regular schedule of study hours.	I find it very difficult to provide study hours

V. Do not answer this question unless you do some work to support yourself while in college. If you work for support, does this activity promote the keenness of your scholarship, or does it operate as a serious distraction? Try to express, in term of benefit or hindrance, the influence of such work upon your studies.	It is ideal and fits in excellently.	It is a help to me in my studies.	It makes no difference in my work.	It is annoying.	An extreme distraction and great handicap.
VI. Consider your future career and prospects. Is your general state of mind regarding your future quite unsettled so that you are restless and unable to settle down to systematic study? Or is the exact contrary the case? Or are you indifferent to such considerations?	So disposed that future prospects are a strong incentive to study.	Future prospects a help rather than a hindrance.	Indifferent to such considerations.	Could do better if I had a more settled program.	Very unsettled, and find it hard to get down to study.
VII. Do you find yourself doubtful, for any reason, as to the value of your college studies? Or are you certain that they have a very high value? In this connection consider whether your present studies have or have not an important bearing on your future life and work.	I place the highest value on my studies.	Quite valuable and should be taken seriously.	At least as valuable as any other activity in which I engage.	Other campus activities are more important.	Distinctly minor importance.
VIII. Do you find yourself unable to study by reason of worry, anxiety, or excessive dissatisfaction produced by causes over which you have no direct control? Or is your state of mind generally untroubled and favorable to study?	My mind is free from worries that would interfere with study.	Although I have occasional worries, these do not seriously affect my studies.	I have real troubles at times, but cannot say that they seriously hinder my studies.	I could do better work if I had less to distract my mind.	Worries are a source of real distraction to me.

wish to get practical laboratory experience during her summer vacation, for instance, while her family may insist that she be at home for at least that much time out of the year.

Physical Health. Social Adjustments.—From the areas of educational progress and vocational plans, the interview ordinarily branches out into a discussion of the individual's physical well-being, the interviewer here utilizing the physician's report, although he has used it indirectly previously. It is usually not difficult after this to lead to a discussion of whether the individual likes college life, whether he is making friends satisfactorily or not, whether he is getting into the extra-curricular and social activities that he would like to; in short, to find out if he seems to be adjusting himself satisfactorily to the college situation.

By the time the interview reaches this last stage, the student is talking freely about himself, his problems, where his difficulties seem to lie, what he hopes to get out of college, whether everything has come up to his expectations thus far, etc.

Mental Attitude.—When the interview progresses to what might be called the more personal part—the part concerned with his feeling of happiness or unhappiness, adjustment or maladjustment—the interviewer tries particularly to sense whether or not the mental attitude of the student might be called healthy. The staff finds it helpful for this purpose to have in mind the following outline:

1. Does the student evidence any exaggerated mannerisms or speech?
2. What is his attitude toward others?
   a. Open, good-natured attitude.
   b. Suspicious, negativistic attitude; blames others for his troubles.
   c. Just does not care about others; loves himself too much.
   d. Tries to influence others with his own importance; boastful.
   e. Cringes before others like a whipped dog.

f. Bashful, blushing response to others. (Note if this is toward his own or the opposite sex, or toward every one.)

3. What does he show about his own personality?
   a. Non-talkative: if so, is it because he is suspicious, bashful, modest, or a crook?
   b. Talkative: if so, is it boastful talking, friendly, or an attempt to divert the interviewer from serious things?
   c. How has he taken difficulties?
      1. Stimulus to better things.
      2. Totally discouraged.
      3. What does he use to defend himself for defeats?
         a. Blames others.
         b. Compensates.
         c. Compares himself with others who are worse than he.
         d. Blames circumstances.
   d. How has he reacted to success?
      1. Stopping place; self-satisfied.
      2. It is a compensation for other weaknesses.
      3. Encouragement for harder work.
   e. Is he visionary or practical?
   f. Emotionally stable or unstable?

Interviewer Alert to Sense Critical Areas.—During the interview, the interviewer is alert to sense the critical points at which the student needs help, and he counsels with him in so far as he can offer him information and advice based on more than his own personal "hunch." He can tell him, for example, if he has an average high school scholastic rating and only average test scores, that research done by the Personnel Office indicates he probably ought to study at least 23 hours a week in order to make a C average in college. If he wants to do better than that, he will have to study more than 23 hours a week. At points where the student seems to need assistance which the interviewer cannot

render, the latter puts the student in touch with some qualified person.

Makes Facilities of University Available to Student.—An interview is considered successful if it discovers the critical points at which the student needs help and makes the facilities of the University available to the student.

Throughout the interview, the interviewer attempts to supplement and check information which the Office already possesses concerning the student. It is neither necessary nor advisable for the interviewer to make many entries in the student's records and little writing should be done during the interview.

If there are appointments with experts to be made for the student, the interviewer, at the conclusion of the interview, makes them while the student is still there. Then he thanks the student for coming in for the interview and tells him that he may feel free to come to the Office at any time and that everything possible will be done to assist him. The student usually expresses his thanks for the time and effort the interviewer has given him and tells him he appreciates knowing that there is some place where he can come for help.

Interviewer's Post-interview Report.—As soon as the student has gone, the interviewer writes out his "impressions." Usually these consist merely of facts supplementing those found in the Cumulative Record Folder. Occasionally there are notes that may be valuable in follow-up work. Sometimes the interview uncovers a complex condition that points to the need for expert adjustment of some unfortunate situation, or suggests some step that the Office can take in coöperation with other agencies to promote a more congenial campus life for all students.

Examples of Difficulties Frequently Discovered in Ordinary Interviews.—The following cases, selected almost entirely from the students of one class, illustrate difficulties uncovered in ordinary routine interviews.

Home Situation

Case 1. Miss A. was asked to leave school second semester last year because of poor grades. Her father was in legal difficulty about his income tax and there was some question of his being sent to prison. He was very anxious for the girl to stay in school. Needless to say, all this worry about her father was partly responsible for her failure. She was readmitted on probation. This year she is in a difficult situation because she is worried about her mother and is obliged to go home every week-end to cheer her, etc. Successful scholarship is difficult under these circumstances.

Too Little Social Life

Case 2. Miss C. was the outstanding girl of her high school class in scholarship and activities. Coming from a small high school, she was lost in this comparatively large institution. She did not join a sorority and the classes seemed large and impersonal to her. She worked very hard and received only average grades, which was due in part to only mediocre high school preparation. She had few social contacts, and they tended to make her feel less successful rather than more so. Her home situation is not satisfactory. The mother depends on her very much, and she has a step-father who, though interested in her, nevertheless does not make her very welcome at home. The whole situation is discouraging, and she was beginning to question her ability to succeed in anything. This year things are a little more hopeful and her adjustment will undoubtedly be better as she goes along.

Low Spirits

Case 3. Miss B. is a high-strung girl. Her health record shows a bad heart and a tendency toward hysterics. Her brother, twelve, has epileptic fits. She says her brother has taught her patience more than anything else. This girl and her family lived in Eng-

land during the War. She was in the area of the air raids all the time and, though she was just a child, they made deep and terrible impressions on her. This year she has an inferiority feeling; no one likes her, she is always left out of everything. She dislikes school and thinks her parents are doing wrong in forcing her to attend. She cannot put herself forward—has tried for five years and is just a failure. Case referred to the psychiatrist.

Finances

Case 4. Miss M. is reserved and unassuming. She is an excellent student and appears to be well bred. There was nothing unusual about the interview until she asked about scholarships and how they were given out. She said that her father is a Scotchman and, though he could help her through school, he sees no reason for her to get more education and refuses to coöperate financially. Her mother helped her the first year and a half, but then became ill and could not go on with the wage-earning work she was doing. The daughter wants to go into social service work and is very deserving, so we referred her to the Committee on Scholarships.

Case 5. Miss P. is a "peppy" red-haired girl who has been on her own resources ever since she was sixteen. She did not get along well with her family, having a quick temper and ready tongue. Her father had the same sort of disposition. The family, when she left, predicted that she would have a nervous breakdown before she had been gone a year. She did not live up to their prediction, however. She has been working for a family for her board and room and some money for two years and apparently gets along all right with them. Beside the housework, she is typing for a professor. She does good class work. She is very independent in her attitudes and has been toughened somewhat, but underneath she is sensitive and is really desirous of doing well.

Health Factors

Case 6. Miss E. was in an automobile accident just before her first year at college. This shook her up considerably and left her with scars which are quite disfiguring. Her adjustment at first was very difficult but is becoming increasingly easy. The main thing was the shock to her nervous system. Her attention wandered more than it should during the interview, and she made little nervous movements.

Case 7. Miss K. has a tremendous handicap. She has a serious curvature of the spine and is very frail. She has had pneumonia seven times. Her left lung has collapsed. Two years elapsed between finishing high school and entering college, because of illness. In spite of her handicap, she has tremendous courage and enthusiasm. She is naturally timid and sensitive. She is trying very hard not to capitalize on her physical condition. Apparently there is no lack of means, and she has all the medical care and attention she needs. This girl's great interest is in religious education. It is not necessary for her to work when she completes her education, but she is determined to do so. She is making a great effort to develop outside interests and to overcome her timidity.

Case 8. Mr. H. has weak eyes which handicap him considerably. He has had to stay out of school almost a year on account of them. The physician thinks they will be a permanent handicap, and that he will have to adopt some vocation that will not involve their use very much. The result is that he is unsettled as to what to do when he is graduated. He does not even know whether he will be able to complete his college course, although he hopes to do so. He seems to have a good mind and a healthy mental attitude. His doctor advises him to plan to do some kind of outside work, or work that is not confining, such as stock raising, etc. He had wanted to go into the Foreign Service of the Government but has given that up.

Unfitness for College Work

Case 9. Miss W. entered Northwestern with fairly low test scores. She found the work hard, and at the end of the first semester was excluded from school. Her father knew that she had been conscientious and had worked hard, and so was anxious that she be reinstated. The committee finally readmitted her. She complained that she always got "panicky" when she had to take an examination. One of the professors came in to talk about the case of this girl. He felt that she wasn't prepared to carry college work, though she was a fine girl, and that there were things which she could do to better advantage. We had found in our interviews that she did not care much for college and would be happier doing something else. Neither her father nor mother had had a college education, and they were both anxious for their daughter to have what they had missed. The girl was losing her self-confidence, however, on account of repeated failures; and after talking the situation over at some length with the girl and her parents, we all decided that it would be better for her to undertake immediately some one of the things for which she was fitted and which she would enjoy.

Case 10. One of the girls whom we interviewed complained about her roommate, Miss T. She said that the girl was most unrefined. We also had a complaint from the preceptress of the house where she stayed. When Miss T. was called to the Office for an interview, our previous reports concerning her were confirmed. She was large and coarse-looking. Her scholastic record and her spoken and written English were poor. In the course of the interview it came out that she liked outdoors and living in the country best. She took great pleasure in hunting and fishing. She had always helped with the farm work, driven a team all day during the season, etc. From what could be gathered, we judged that her family was rather illiterate. The girl herself

did not like the University. She had come because it was near home, but she really wanted to attend an institution in Colorado. She wanted eventually to teach history in some small town or rural community. Though unable to fit into Northwestern University, she might have been able to adjust better in a smaller college. The girl disregarded our advice to withdraw and go to some other college, and was requested to leave at the end of the first semester because of low grades.

Mental Maladjustment

Case 11. Miss C. was a highly emotional and religious girl during her adolescence. She went to great extremes in her religious fervor, praying for hours, sometimes even torturing herself for some insignificant sin. When she came to college, she felt that in order to be popular she must have had interesting and exciting experiences. She began making up wild and extreme stories of things she had done. The girls began to think her very bad, and finally took the matter to their preceptress. The psychiatrist, after many interviews, thought that the girl might possibly be helped, but the feeling against her among her mates was so strong that it was thought best for her to leave at the end of the semester to undertake treatment in a different environment.

Poor Adjustment to a New Situation

Case 12. Miss W. was a most unusual freshman. She was large and mature looking, though she was about the same age as the other girls. In the first interview she said that she had grown very fast during her high school period, and that this situation was responsible for the fact that she had always gone with men older than herself. She was constantly tired and in need of sleep. The physician said it would be several more years before she would get over the effects of her unusually rapid maturing. She had come from a small town, and when she reached the city she

"lost her head." She spent every spare minute in browsing about town, going to the theater, the opera, concerts, etc. Of course her school work suffered. She succeeded in passing her work with average grades because she was above the average in intelligence, but she did not do nearly as well as she could have done. This year the girl wants to curb her abnormal interest in the city, and realizes that if she got average grades last year she could do excellent work if she really worked. She is doing well at present.

A Secret Marriage

Case 13. Miss Y. came to the office for the routine interview. In our discussion of her social life on the campus she said that she was having a very difficult time socially; not because she couldn't make plenty of friends, but because she had been secretly married two years before and was now attempting to get a divorce without any one's knowing that she had been married. She said that her parents, of course, knew it, but that no one else in the University had any idea of it. She was not well physically, but had shrunk from consulting a physician. She was having to overcut some of her classes because she had to keep appointments with her lawyers when they could give her the time. She did not want to postpone her school work until after the divorce proceedings were finished because she felt she must have something definite that demanded her attention aside from her marital difficulties.

She finally consented to consult with the University physician, after the interviewer explained that she would make the appointment for her and explain very confidentially, of course, to the doctor so that Miss Y. need not be embarrassed in any way.

The physician agreed that Miss Y. was probably wise in continuing her University work. Miss Y. became reconciled to losing two hours of credit because of the necessary overcutting which she had to do. Her divorce was granted her last summer and she says she is happier than she thought she ever could be again.

Vocational

Case 14. Mr. M. is quite disturbed about his life-work. His father has a print shop and the boy could start work there and eventually have charge of it, but he is not sure that he wants to do so. He does not have the cultural interest in college that many men have, so that at present his interests have no direction whatever. He likes a subject until he learns it and then he tires of it. He is looking for something that will be permanently interesting. He makes good grades in school, but the second year of college finds him as undecided vocationally as ever. We put him in touch with a vocation expert for further discussions.

Distractions

Case 15. Mr. D. is carrying 17 hours of work and is not succeeding. He would like to engage in varsity athletics but cannot do so because of low grades. Even so, he spends a great deal of time in the gymnasium preparing for the time when he may be eligible. At the present time his mother is away and so he has the responsibility of buying and cooking for his two brothers. He says that he does not have enough time to study, for, besides the above activities, he is a scoutmaster, has a Sunday School class, and, most engrossing of all, has been "trying to make love to an Alpha Beta."

Too Much Outside Work

Case 16. Mr. C. has been out of school for two years, saving to come to college. He received the highest score in the M. A. test last fall, and to all appearances is living up to the prediction of that score. He is earning his way through school as well as helping his parents by working every evening from five to twelve at the Postal Telegraph office, where he is able, however,

to do most of his studying on the job. He finds the work extremely confining, and has little opportunity to get into activities or social life. He plans to enter the School of Journalism at the end of two years. In spite of all his outside work, he is doing very good academic work.

Social Maladjustment

Case 17. Mr. C. is uncertain as to whether he wishes to complete his course at Northwestern, due to the fact that he has a very dear friend who was his "buddy" in high school and who goes to Washington University. His father insisted that he come to Northwestern University for the first two years and told him he could choose for himself where he would go after that time. He finds himself thinking about his friend when he should be working, and is always planning to go to Washington so as to be with him. He has made practically no friends here because he spends his time in the library and does not care for companionship. He feels that he has made a mistake in thus isolating himself, but says he finds it hard to make friends. All through high school, he thought that girls were not worth anything, and his "high ideals" kept him from having anything to do with them. He feels now that this idea was wrong, that there are some girls with as high ideals as men, and that some of them are just as noble in their characters. This young man in St. Louis is the only one he has met whose ideals measure up to his own. Mr. C. is a poet and is writing a book of poems which he expects to publish. He now has about 150 poems written. Some of them are crude (modesty compelled him to add that "perhaps all of them were") and need repolishing, but he hopes to get them all together and published as an expression of his youthful ideals. He was urged by the interviewer to make an effort to get acquainted with more students and he agreed, saying that he would try. He has also consented to talk to the psychiatrist.

Case Involving Faculty Discipline[1]

Case 18. A student within four weeks of graduation, a boy with an excellent record hitherto, was discovered to have appropriated funds from the student organization for which he was business manager. He was called before the Board to which he was responsible for a financial accounting, confronted with the accusation, and asked what he had to say. He simply denied the accusation. The Board had absolute proof of the misappropriation of funds. The matter was submitted to the Dean of Men who was to lay it before a Board of Supervision representing the faculty.

At midnight the Director of Personnel was notified at his home of the situation, by a fellow student. The Director learned that the boy was still at his fraternity house, so he made arrangements with the fellow student to bring him to the office for a talk the next morning. At six-thirty the next morning the Director was called again by the same student who told him the boy had left town in the night. His freshman roommate was the only one who had any idea where the boy had gone; it was obvious that he could not have gotten out of his room without the roommate's knowledge. After a while the freshman admitted that he knew the boy was in Chicago. The Director succeeded in finding him there and pointing out to him in a telephone conversation the unfortunate situation that would arise if he ran away from the affair. Meanwhile, the bank had put the matter into the hands of detectives, since it had involved the student's indorsing the check to himself. The Director was able to get the bank to call off the detectives, agree to permit the University authorities to handle the case, and to abide by the decision of the University. After an all-day session, the student was persuaded to return to the fraternity house; he attended the meeting of the Board which had been called, and admitted that the accusations were correct. The Director made an arrangement for him to make up his short-

[1] This case was not the direct result of an ordinary student interview.

age. The question came before the Board as to what should be done. The Board had the right to act temporarily and then report the case with findings to the faculty association which ultimately decides what shall be done. The case required consideration in the light of the boy's home background and experience. The Director was able to give the Board certain facts. His father was dead. His mother, while interested in her son, had many activities, traveled about, was not businesslike; so her responses to his requests for funds, though generous, were often delayed. He had written her some weeks before, was daily expecting a check, and had used the funds intrusted to him in the expectation of replacing them almost immediately. As a matter of fact, when he returned from Chicago, a letter was awaiting him with a check for six hundred dollars. He had used less than two hundred dollars of the organization's funds.

Due to the insistence of one member of the faculty, the boy was expelled from the University. The procedure on the campus would usually have been for the fraternity, when action was asked of the faculty, to deny the boy the privileges of the house. In this case, with the permission of the faculty, the fraternity did not deny them to him.

These cases show the wide variety of student problems that are brought to light in the regular scheduled interviews. There are those who believe that it is a mistake to undertake wholesale interviewing of a whole class. They believe in interviewing only those who are referred to the Office for special help or who, meeting some difficulty or problem in their lives, have the initiative to come voluntarily for consultation. They believe that scheduled interviews of all freshmen, for instance, are necessarily artificial and of little value. The experience of the Northwestern Department of Personnel leads to the conclusion that unless each class is covered by interviews (necessarily scheduled) at least once, the accuracy and completeness of records could not be assured, and a large

number of cases of maladjustment would exist entirely unknown to anyone trained to deal with them or in a position to attempt their remedy. One of the main purposes of the general interview, however, as has been pointed out, is to acquaint the student with the service that the Department offers him so that he will come spontaneously for help at any future time that he needs it.

Policies Maintained Regarding the Interview.—Notwithstanding the fact that our knowledge of individual differences and abnormal psychology is used to the full in interviews with students, the Personnel Department is by no means a clinic or laboratory. Director Howard says in a statement issued in mimeographed form in March, 1927:[2]

> Our work would be seriously handicapped were we to turn our office into a clinic or laboratory. Students come to us, not as specimens, but as Northwestern people whose individual dignity is to be respected at all times. Applied psychology is for us an instrument to be employed in the furtherance of the welfare of our students; it is never an end in itself. . . . In no case is our inquiry into the state of the individual of a scraping or spying nature. It is a rule with us that all contacts must be in good taste. This attitude is essential to forwarding the work of adjustment and orientation that is our chief concern.

Value of the Interviewing Program.—Dr. Howard also says concerning the interview, in the same report:

> The chief business of a college, whatever its nature, is to promote the intellectual, social, and moral development of its students. The interview furnishes the sole means by which the status of individuals and their state of progress can be determined. Hence, interviewing justifies the large cost in time and expense that it entails. It is a delicate and critical type of work. Care must be taken as to what kind of ideas are given the student concerning himself, his teachers, his college, and especially concerning life's deeper values. But prop-

[2] Howard, D. H., "The Personnel Department of Northwestern University." Report in mimeograph form, March, 1927.

erly conducted, it is indispensable. So far, at Northwestern, we have reason to believe that the work has been productive of highly desirable results.

The one truth that most impresses the interviewer is that every individual is unique and has his own unique problems. No two cases are identical. The number and complexity of the difficulties to which students are subject is amazing. Contacts of this nature open up a new world to the inquiring teacher or administrator. They throw a new light upon the University's educational undertaking. Above all, the interviewer must be impressed with the utter inadequacy of "standardized production methods" in the college. If, as we generally assume, the aim of education is the development of the individual's powers and capacities, it follows that knowledge of the individual is a prerequisite to effectual instruction.

Chapter Ten

VOCATIONAL COUNSELING AND PLACEMENT

Vocational guidance is defined by the National Vocational Guidance Association as "the giving of information, experience, and advice in regard to choosing an occupation, preparing for it, entering it, and progressing in it." Many of these functions the Personnel Department at Northwestern performs. The collecting and giving of information in regard to choosing an occupation is perhaps the function that is stressed most in the vocational work that the Department does.

Vocational Information Needed.—How needful such information is can be judged by reflecting that about forty per cent of the freshmen interviewed at Northwestern do not know what they want to do when they finish college. Sixty per cent express one or more preferences, but sixty or sixty-five per cent of these change their choice by the time of their next interview. Although definite comparative figures are not available, it is known that the number of women who have vocational choices as freshmen is smaller than the number of freshman men who have made vocational decisions.

Students Put in Touch With Practitioners in Vocational Fields.—Northwestern University, like most colleges and universities, has experienced difficulty in securing information concerning the large variety of occupations in which college men and women are interested. It has tried to meet this difficulty in various ways. As mentioned in another section, students who have questions regarding some particular occupational or professional field may be introduced to an alumnus who is actively engaged in that field and who is interested in helping younger people make vocational

decisions. Approximately 12 per cent of the 800 freshmen availed themselves of such contacts in 1926-27.

Vocational Conferences.—Successful practitioners in various vocational fields are throughout the year brought to the campus by student committees with whom the Personnel Office coöperates. These people hold informal conferences with groups of students who are interested enough to go to hear them. This method has not proved particularly successful, but it undoubtedly produces some good results in disseminating information.

Vocational Information Solicited for Students from Business Concerns by Letter.—The Office has, from time to time, sent to prominent individuals and business concerns, letters asking them for information that might be passed on to students. The answers to these letters are kept on file where students can refer to them. Extracts have also been published in the student publication.

Coöperation with Vocational Agencies Outside the University.—One member of the staff has been a member of the Board of Chicago Collegiate Bureau of Occupations, and has thus had the benefit of whatever information that Bureau might have about local employment conditions for women college graduates.

Vocational Library.—The Office maintains a shelf of standard books on vocations just outside of the interviewing booths. The college librarians coöperate with the Office in compiling lists of readings on vocational subjects.

In 1927 the Office engaged a young woman to make an investigation of employment for college women in Chicago. The report of this investigation is a valuable contribution to the vocational library.

Bulletin Prepared by Office Which Presents Pre-professional Programs of Study in Convenient Form.—In order that information regarding programs of study might be available for those desiring to enter engineering, medicine, law, journalism, speech, music, education, physical education, nursing, religious education, or foreign diplomatic service, as well as for those intending to

fulfill the requirements for the Bachelor of Arts or Science degree, the Personnel Office has published each year since 1925 a booklet called: *An Outline of the Programs of Study Open to Those Who Register as Freshmen in the College of Liberal Arts.* The aims of the bulletin are stated in the preface as follows:

> The following pages present—in a form which it is hoped will prove of value because of organization and brevity—all the programs of study in Northwestern University that are open to students who register as Freshmen in the College of Liberal Arts.
>
> This bulletin tries to show accurately the required and recommended content of each of the one-, two-, or three-year programs of pre-professional study in the College of Liberal Arts. It should be recognized that these one-, two-, or three-year programs are minimum requirements. Consideration should also be given to the value of four full years of Liberal Arts study, not only as more adequate preparation for any professional course, but also as an aid in more complete living.

There is no information in this *Outline* which is not contained in the regular University Course Books, but the booklet presents this information in a form that can be comprehended more easily. Faculty advisors use this booklet a great deal, particularly during the registration period; and by checking the student's intended program against the authorized program as set forth in the bulletin, they are able to prevent many unfortunate mistakes.

Another section has been added to this booklet since the first year. This presents for the use of the faculty advisors information concerning all of the classes in the College of Liberal Arts which are open to freshmen during that semester. This section has been found of value, since it saves much turning of pages in the regular Course Book during the registration process.

Pre-professional Groups Organized.—Some headway has been made in organizing into groups all those preparing to enter the same professional school. These groups meet at intervals with some expert in the field for which they are preparing, and it is

TABLE IX

OCCUPATIONS MENTIONED IN THE VOCATIONAL CHOICES OF MEN OF THE CLASS OF 1926—LIBERAL ARTS

No. of Choices 1st	2nd	3rd	Occupation
35	7	5	Law
28	11	3	Business
27	4		Medicine
10	5		Dentistry
9	3	1	Journalism
8	5	2	Teaching
13	4	1	Commerce
6			Accounting
6	2		Manufacturing
6	2	1	Banking
4	4		Surgery
4		1	Retail Business
3	3		Advertising
3	3		Ministry
2	3		Doctor
2	4		Chemist
2	3	1	Insurance
2	2		Real Estate
2			Business Manager
2	1		Writing
1		1	Pharmacy
1			Pedagogy
1	1		Life Ins. Salesman
1			Insurance Salesman
1	4	3	Salesman
1	2	1	Bond Salesman
1			Com. Banking
1			Finance
1			R. R. Executive
1	1		Newspaper Work
1			Sanitary Engineer
1			Professional Baseball
1	2	1	Architect
1			Broker
1			Social Service
1	2	3	Engineer
1			Steel Business
1	1		Lumber Business
1			Factory Manager

No. of Choices 1st	2nd	3rd	Occupation
1			Mercantile
1			Hardware Merchant
1			Secretary
1			Author-Poet
1			Cartooning
1			Commercial Art
1			Osteopathy
1			Forestry
1			Outdoor Research
1	2	3	Music
1			Prof. Musician
1			Contracting
1			Interior Decorating
1			Builder
1			Correspondence Sch. Work
1			Business Executive
1			Importing and Exporting
1			Stone Merchant
1			Clerical Work
	1		Bacteriology
	1	1	Chemical Engineer
	1		Chemical Research
	1		Theology
	1		Religious Education
	1		Shoe Business
	1		Foreign Trade
	1		Foreign Commerce
	1		Farmer
	3	1	Agriculture
	1		Direct Athletics
	1		Landscape Architect
	1	1	Civil Engineer
	3		Electrical Engineer
	1	1	Mechanical Engineer
	1		Mechanical Work
	1		Literary
	1		Efficiency Work in Business
	1		Motor Designing
	1		Science

TABLE IX (*continued*)

No. of Choices 1st	2nd	3rd	Occupation
1			Bond Manager
1			Government Work
1	1		Army
1	1		Singer
	1		Actor
1			Politics
1			Diplomatic Service
1			U. S. Naval Engineer
1			Short Story Writer

TABLE X

Occupations Mentioned in the Vocational Choices of the Men of the Class of 1924—Commerce

No. of Choices 1st	2nd	3rd	Occupation
19	4		Accounting
10	5		Business
5	1		Banking
4	1	1	Business for self
4			Manufacturing
2	1		Foreign Trade
2	1		Real Estate
2	1		Merchant
2			Selling
2			Retail Business
2			Law
1	1		Stocks and Bonds
1	1	1	Oil Business
1			Broker
1			Salesman
1			Shoe Retail
1	2		Insurance
1	1		Finance
1			Printing and Binding
1			Hotel Work
1			Advertising and Sales
1			Transportation and Traffic Management
1			Diplomatic Service
1			Retail Clothing
1			Colortype
1			Iron and Steel Business
1			Building Banker
1			Executive
1			Manager of Electrical Business
1			Welfare Work
1			Adver. Salesman
	1		Magazine Work
	1		Contractor
	1		Business with Corp.
	1		Packing Business
	1	1	Advertising
	1		Building
	1		Transportation and Railroading
		1	Business with Government

believed that the interest of these pre-professional groups acts as a very real scholastic incentive.

Certain other students who may be taking a general Arts and Science course but who have made a definite vocational decision are organized into groups based on their common vocational interest. For example, there is a club consisting of those who intend to become missionaries, and the Office is glad to coöperate with this club each year by giving them the names of students who express an interest in the missionary field.

Survey Showing Range of Vocational Interest Among Men in Liberal Arts and Commerce.—A study made of the freshmen of the class of 1926 in Liberal Arts and of the junior men of the class of 1924 in the School of Commerce shows the range of vocational interests. (See Tables IX and X, pages 112 and 113.)

Of the 253 men of the class of 1926, there were 110 who had one choice, 63 who had two choices, 40 who had three and 40 who had no choice of a vocation or profession. Among the Commerce men, on the other hand, 74 had one choice, 26 had two choices, and only four had three.

There were 59 occupations mentioned as first choice by the men of Liberal Arts. Law, business, and medicine were the outstanding favorites. Law was mentioned as first choice by 35 freshmen, business by 28, and medicine by 27. If the second and third choices, as well as the first, are taken into consideration, law was mentioned by 47 freshmen, business by 42, and medicine by 31.

Accounting was mentioned as first choice by 19 Commerce men, and business by 15. Banking was the next most frequent occupation, but it was mentioned as a first choice by only five men. There were 31 occupations mentioned as first choices by Commerce men.

Of the freshmen in Liberal Arts, 78 per cent named a first choice, 32 per cent a second choice and 10 per cent a third. Of the Commerce class studied, 74 per cent had a first choice, 26 per cent a second and 4 per cent a third.

These figures do not represent any significant difference between the numbers of men in Liberal Arts and Commerce who have made vocational decisions. They certainly do not mean that fewer juniors in Commerce School have arrived at a definite vocational decision than freshmen in Liberal Arts. All of those in Commerce School have, as matter of fact, made a major vocational choice when they entered the professional school. Their choices of occupations represent, therefore, a more detailed choice than do those of the Liberal Arts freshmen—a choice within a major field.

No Vocational Tests Used.—Northwestern has thus far made no use of vocational tests for college students.

Placement Work. Survey of Placement Agencies in 1924.—Although placement is recognized as one important function of educational personnel work, the Personnel Office at Northwestern has guarded carefully against becoming merely an employment office. At the time that the Personnel Office was established, employment agencies already existed in a number of the professional schools: namely, the School of Speech, the School of Dentistry, the School of Education, Religious Education, and Physical Education, the School of Engineering, the School of Music, and the School of Commerce. In an effort to discover the amount and kind of work each of these was doing, the Personnel Office undertook a survey. At the conclusion of the report of this survey the investigator stated:

Centralization of Work of Placement Agencies Recommended.—There is an apparent need for centralization of effort and control among the several employment agencies of the University. It has been suggested that an office be created for this purpose to be known as "The Northwestern University Placement Office." Such an institution would provide for an interchange of ideas between the various employment offices in the different schools, which, it seems from this survey, is highly desirable. At this time no employment office is

acquainted with what any other office is attempting to do and the methods used to accomplish it. Each school has its own "system" and, frankly, some of them are hardly deserving of that title.

I am profoundly impressed with the need of a University Placement Office, a standardization of procedure for all schools, a standardization of forms, and a general unification of effort in this field throughout the University.

Coördination of Placement Agencies Through Director of Personnel.—Largely as a result of this survey, the Director of Personnel was made Director of Placement for the entire University. Actual placement work was left within the bureaus already in operation. It was felt to be a decided advantage to have graduates of the Engineering School, for instance, placed through an office which specialized in engineering positions, an office which the engineering graduates could feel was peculiarly their own, and an office which could most successfully, perhaps, enlist the active support of the Engineering faculty in placing graduates in promising positions. The Personnel Director did, however, begin to take an active part in coördinating the efforts that were being made in the various placement offices throughout the University. Emphasis was placed on the following points:

Policies Underlying Placement Work.—1. A placement office should ascertain as much as possible about the policies of organizations which request access to its graduates.

a. Placement should be made with a careful knowledge of the opportunities for a college-trained individual which are inherent in the positions which are open.

2. An employer is entitled to know the facts regarding the qualifications of the individual he is considering employing.

In an effort to acquire more knowledge of the opportunities for college-trained individuals in various business organizations, the Director of Personnel issued a number of letters to responsible officials of those concerns asking them for information. Mr. Hop-

kins says concerning one of the numerous replies which he received to these letters:[1]

One reply from Mr. Harold H. Swift of Swift and Company, Chicago, has been of so much assistance to me in my contact with students that I am taking the liberty of including it here.

"As compared with his less educated competitor, the college graduate who presents himself for employment in the packing industry enjoys an initial advantage and is burdened with an initial handicap. It is essential to success that from the outset he should have a clear understanding of where his opportunity really lies, as well as a clean-cut conception of the handicap which he must overcome. Moreover, it is highly important that he should accept both as the reasonable outcome of a situation which has given him superior mental training at the expense of practical experience in the industrial world.

"Whatever advantage his education gives him arises out of a trained ability to utilize his natural intelligence and the broadened perspective due to the informational content of his studies. While the latter is important, it does not operate in the early stages of a business career to anything like the extent that the graduate usually expects. Supplemented by experience, it will in later years constitute a basis for the formation of broad judgments and sound policies. That this is not the function of youth in industry, however, is one of the facts which the disillusioned college man most frequently finds distressing.

"It is the possession of a trained mind, rather than stores of knowledge, which constitutes his most valuable asset. It is this which differentiates him from his equally intelligent but less educated fellow, so far as his start in industry is concerned. With well-developed powers of concentration and analysis, his mind is the sharper tool and can, other things being equal, make faster progress.

"But other things are not equal. This is the college man's handicap. Failure to recognize the fact and evaluate it correctly before he enters into industrial life is one of the most common causes for disappointment that is so frequent among graduates who have been out of college two or three years. They do not give sufficient weight

[1] Hopkins, L. B., "Personnel Procedure in Education," *Educational Record Supplement,* October, 1926.

to the fact that while they are acquiring mental training, those with whom they are later going to compete have been acquiring practical experience and have already gained a foothold in the organization which employs them. Among them will be some who are of superior natural intelligence who, while gaining experience, have also been developing mental powers of a high order through persistent self-education. Naturally it is a shock to the educated man to find that in the specific duties of those positions through which he must gain an entrance into industry, he is less efficient than men who dropped out of school at sixteen. Unless he has been thoroughly prepared while still in college to meet this situation, it strikes him like a blow in the face. Either he loses his faith in his college education or else he grows bitter, and concludes that something is all wrong with the system."

When a student inquires concerning a business organization about which a placement office or the Personnel Office has no information, the practice has been to send the following letter to that company and to make the reply of the company available to the student:

To the President of Business Organizations:

This office, among other things, is concerned with giving our prospective graduates as much information as possible about the organizations with whom they are considering making a connection.

One or more of this year's senior class has asked us for information concerning your company. I fully appreciate the difficulty of furnishing information except in terms of vaguest generalities; nevertheless, I wonder if you will be willing to coöperate with us to the extent of telling us:

First. How many employees have you in your entire organization?

Second. What percentage of these employees are college men or women?

Third. How many college men or women do you bring into the organization annually, and in what departments are they employed?

Fourth. What provision is made for the training and follow-up of college graduates in your various departments?

Fifth. Have you determined upon the successive steps of promotion and the types of positions to which these successive steps lead for college graduates starting their business careers with your company?

Sixth. Have you any literature defining the nature of your product, the field of service covered by your company, the territory served, the company's history and its policy in relation with its employees?

Placement Work Done Directly by Personnel Office for Senior Men in Liberal Arts and the Evanston School of Commerce.—A large group of Liberal Arts graduates who were not planning to enter any professional school did not know which placement office of the University they should visit. To take care of this apparent gap in employment facilities, the Personnel Office each spring sends a letter to senior men in the Evanston School of Commerce and the College of Liberal Arts. The questions asked and the answers received in one year are tabulated on page 120.

These figures are fairly typical of other years and indicate the large number of men graduates in the Evanston School of Commerce and the College of Liberal Arts who are looking for occupational opportunities: 94 per cent of the Commerce seniors and 76 per cent of the Liberal Arts seniors. Two or three months before graduation only 48 per cent of the Commerce seniors and 56 per cent of the Liberal Arts seniors have decided what they are going to do after graduation. Forty per cent of the Liberal Arts seniors expect to do graduate work.

Following the receipt of the answers to this letter, conferences are arranged between graduating students and employers. The group interviews are usually preceded or followed by personal interviews between the student and the Personnel Director.

Not every corporation which asks to be put in contact with graduates is given the privilege of interviewing them, for there are

corporations which do not know how to educate them or how to utilize their abilities to the fullest.

TABLE XI

LETTER TO SENIORS OF 1924–25

During the spring of 1924 a letter was sent to the senior men of Commerce and Liberal Arts to which the following responses were received.

Questions Asked	School of Commerce				College of L. A.			
	Yes		*No*		*Yes*		*No*	
	No.	%	No.	%	No.	%	No.	%
1. Have you decided what you are going to do after graduation? [a]	19	48	19	48	17	56	13	44
2. Are you anticipating doing graduate work?	3	8	36	92	12	40	18	60
3. Are you anticipating accepting a business opening?	32	82	7	18	20	67	10	33
4. Have you accepted a position as yet?	3	8	36	92	2	7	28	93
5. Are you considering one or more possible opportunities where definite offers have been made you?	17	44	22	56	13	44	17	56
6. Are you still looking for an opportunity?	37	94	2	6	23	76	6	24

[a] One person failed to answer Question 1.

More Placement Work Needed for Women in College.—By no means has as much work been done thus far on the placement of women graduates as has been done for men. In 1924, however, letters similar to those for men were sent to all of the business houses in Chicago which had any reputation for employing college women. The answers to these letters have proved valuable in giving vocational counsel of practical value to women students.

The Placement Offices of the various schools of the University do, on the whole, very efficient work in placing their professionally trained women students. The Chicago Collegiate Bureau of Occupations has proved of value in placing Liberal Arts graduates in various kinds of positions. A survey of employment of women college graduates in Chicago which was recently made under the auspices of the Personnel Department gives concrete information concerning this problem that has hitherto been lacking.

Part-time Employment.[2]—Students who wish to spend several hours a day working for remuneration in order to pay part of their expenses are, for the most part, cared for through the employment offices of the college Young Men's and Young Women's Christian Associations. These Associations have for years been paid a certain sum of money by the University to perform this function. The Personnel Department coöperates closely with the Associations in this work.[3]

[2] For further data concerning students who are partially or entirely self-supporting, see pages 157, 159, 163 and 174 ff.

[3] In the Fall of 1928 part-time employment was taken over directly by the Personnel Office.

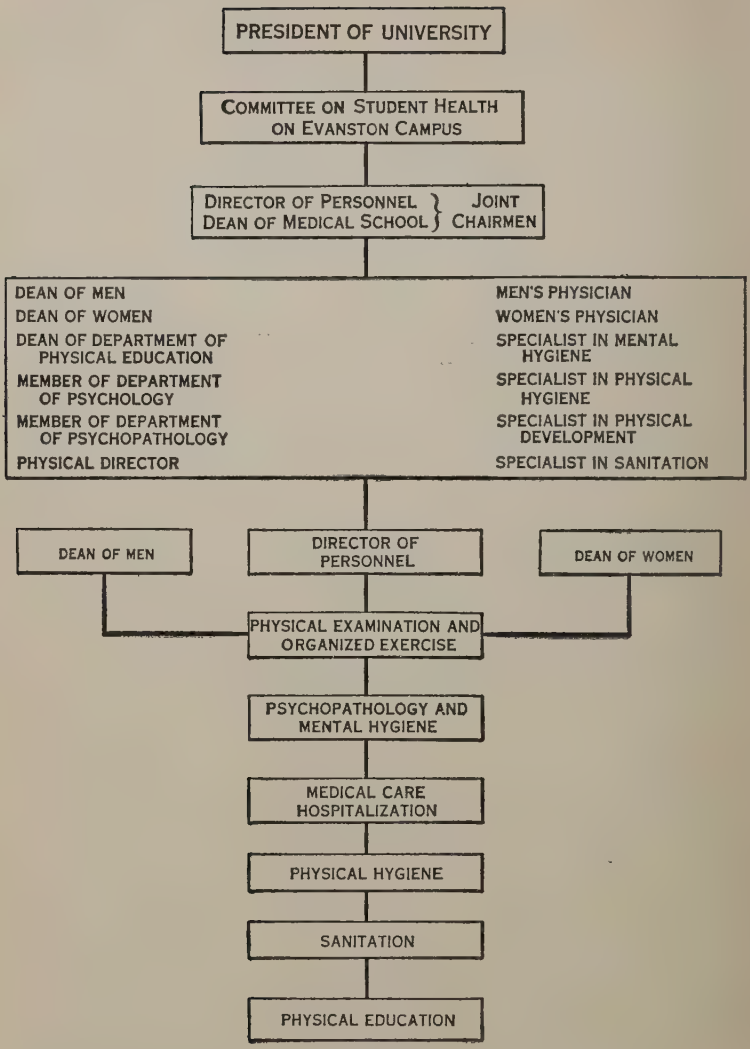


DIAGRAM II

ORGANIZATION PLAN FOR THE HEALTH PROGRAM ON THE EVANSTON CAMPUS

Chapter Eleven

MENTAL HYGIENE

Coöperation Between Health Department and Personnel Office.—Considerable emphasis has been placed on students' health problems. There is a close relationship between the work of the Health Department of the University and the work of the Personnel Office. The organizational relationship may be seen from the outline on page 122 of the Committee on Student Health on the Evanston Campus. This committee meets about once a month during the school year and has proved its value in making the health program more comprehensive and effective in its application to individuals. A psychopathologist, who is also a member of the Department of Psychology, spends half of his time in the Personnel Office.

Health in the Student Interviews.—Each Cumulative Record Folder has the important items concerning the student's health recorded from records of the University physicians. No interview in the Office takes place without a consideration of physical health. What might be called a mental hygiene point of view (as discussed on pages 94 and 95 of Chapter IX) is introduced into every interview. Cases that apparently need to come before a physician or psychologist or psychiatrist are referred by the interviewer to these specialists; the student is persuaded to keep the appointment which the interviewer makes with the specialist, and the specialist reports back to the Office his findings with regard to the case.

Freshman Lectures on Mental Hygiene.—Lectures on mental hygiene have for several years had a place in the year's course

in General Hygiene which is required of all freshman men and women. These lectures are given by a specialist in mental hygiene and have been found of value in giving freshmen a saner attitude toward the whole question of mental health.

Mental Hygiene in the Student Interviews.—Mental hygiene problems cannot possibly, however, be cared for adequately by means of group lectures. The trained interviewers on the staff of the Personnel Office have an excellent opportunity to further a program of mental health by applying tests of mental health to each individual, and by bringing each student to a realization that problems of mental health are comparable to problems of physical health and that no shame whatsoever is involved in bringing problems of mental health to a specialist.

How Problem Cases Come to the Office.—Such problems have been brought voluntarily to the Office by students in considerable numbers. Other problem cases have been referred to the Office by members of the faculty or administrative officers, to be handled eventually by a psychiatrist or psychopathologist after the interviewer, acting in the capacity of a psychiatric social worker, has prepared the student for treatment.

Administrative officers have stated that this facility that the Office offers is helping to bring about at Northwestern a change in the administrative treatment of unsocial behavior; it is introducing a therapeutic note into the old policy of a punitive discipline that has prevailed for so long in most of our colleges.

Examples of Mental Hygiene Cases.—In order to give some idea of the types of cases which are found among a student body, a few case records are reported. Since these cases are meant merely to illustrate some of the mental hygiene problems that are met with every day in personnel work, they are described in the informal way in which they are first written up for the Office records by the staff interviewers. The technical reports of the psychiatrist are not given here.

Case 225

Interview by the psychiatrist, March 15, 1927

Harry came to college this spring as a freshman. He went first to one of the ministers in town and complained that he did not like the University and was not interested in his work. He was studying for the ministry and was afraid he was not making good so would have a hard time getting into the ministry. The minister sent him to the University physician who gave him a thorough physical examination and then called the Personnel Office to have him interviewed.

In my interview with him his first statement was that he hated college. He had absolutely no interest in his work. He disliked German most, but was not getting along in any of his courses very well. He said that he chose the ministry of his own accord, but was afraid that since he was not doing his academic work well he could not go into the ministry. (He came to study for the ministry and then lost interest in study, which is another way of saying he does not like the ministry.)

Without telling him anything of this sort, we asked him what he would do if he failed in his study and could not become a minister. He replied with some show of eagerness that he would be an actor. To this statement he added that his parents objected to this profession because they thought that all actors were bad; but he felt sure that there were a large number of actors who were not immoral. It developed, however, that he had never broached the subject of acting to his mother or father. His opinion as to their aversion to this profession was taken from indirect expressions of opinion from them.

He interrupted the trend of things here to tell me that he had been to Purdue last year and had failed there. He had planned to take up horticulture at Purdue and step into his father's work. He did not like that, and when he found that he was failing he decided to go into the ministry and came here and entered as a

freshman, giving only his high school records. He had said nothing about his semester at Purdue, which is, of course, a strict violation of the rules governing application for admission. He evidently failed mathematics, English, and chemistry at Purdue. We do not think that worry about this is back of his present trouble. He thinks that he has done nothing wrong in this; he just said nothing about it and did not lie.

We then tried to find anything in the home situation that might account for his trouble. His father is in poor health but not seriously ill. He has no financial worries. He has two brothers, 9 and 12, and a sister of 18. Harry is 19. When he was asked to tell about his mother he said: "Well, my mother has confidence in me. She knows that I would not do anything wrong. I have no bad habits and she always has had faith in me."

He went on to tell how in his home he had always been looked up to. The people all thought that he was a fine moral boy, and that was one reason why he could not go home from college without finishing. Whenever a person drops out of college the neighbors all assume that he is no good. Consequently, even if he did not get along here he could not go home.

We then asked him what he would do if he did drop out. He had failed Purdue and was on the way to fail here. What would he do immediately if he could not go home? He answered that he would go with a boy friend who was an actor. This boy he had known a long time and he thought he would be able to help him in getting into the show business. He had never talked to this boy about going with him. The boy, however, had told him incidentally that hundreds of boys go to New York with the intention of getting into some show, and after a number of years of starvation find that they cannot make a "go" of it.

In spite of all this, Harry wants to get out of school and go with this chap to get onto the stage.

We then learned that when he was in high school he got along all right when he tried to do so. As an illustration, he stated that

he bet the girls he could beat them all in geometry, and with a little study he succeeded in doing so. His entire high school record was fairly satisfactory. He stood in the upper part of the second quarter.

Since he has been here he has gone down to Chicago to see some actors. He goes to a show and then stands at the stage entrance to see whether he can identify the players as they come out in their street clothes. He has talked to two of the players in one of the biggest musical hits which played here this year. They both advised him to go on with his college work.

We then told him that it looked to us as though he was most interested in getting the approval of people and public attention. He succeeded in geometry when he could appear to good advantage. He wanted to go into acting for this reason, but his parents object; so he chooses a form of exhibitionism which would meet his mother's approval and which all who look on will agree is a moral occupation: the ministry. However, when he gets here he does not like the ministry, and so dislikes school in order to get out of the thing and enable him to get into acting. He admitted, after this summing up, that he probably did like to do things where he could appear before people, but said he did not particularly like to show off. After this little defence he again reverted spontaneously to a defence of the morality of actors. He had read a number of biographies of actors and named a number who had been moral. He says that he can go into it and act in moral plays and maybe direct one, if the chance comes his way. He then told of some of the immoral plays. The worst one in Chicago is ——. The awful thing about it is connected with a dirty story just as the curtain goes up. The other bad thing about the play is that women are presented in it almost nude. He thought he could get into shows that do not have such things in them.

This seemed to indicate that he might be having a moral difficulty of some sort. We questioned him about this and he replied that he had never had any difficulties with girls. He had been

free to go out with them and only found one who suggested anything wrong and he afterwards avoided her. He kept saying that he had always been a good boy. He did admit to some autoeroticism but he said that he had not been excessive in this and did not worry about it.

He is evidently highly repressed and trying very hard to be the ideal boy that his mother has tried to make him. His main drive as far as we can find out is his exhibitionistic tendency. For this reason we advised him to get into the School of Speech and take some real training toward acting so that when he got out he would have more of an opportunity. We made an appointment for him with the Dean of the School of Speech and sent him over to see him.

Report by a staff interviewer on Case 225, November 29, 1927

Harry came to my room about the 20th of October and told me that he was not getting along in his work. It seems that he had decided to have another go at Liberal Arts work this semester instead of going into the School of Speech, as he seemed to think last year he would do. He said that he had to drop out of Liberal Arts early last semester due to illness and was allowed to return this fall. He felt that he had been given a special privilege in being allowed to return this fall, and that it was up to him to make good. His family seemed to prefer that he come back to Liberal Arts, he said, instead of entering the School of Speech. He wondered if I could help him with his work, or advise him as to how he could do better.

His sister is here in Northwestern this fall and is apparently doing well and he is unwilling to have her surpass him.

His main trouble, he complains, is in not being able to study. He has had poor training and cannot get his work. He can't arrange his program and can't force himself to study. Obviously he isn't enjoying it. He is a pledge at the —— house and feels that he is getting his fraternity work all right. He has been living with different boys in the house and has not been able to find a

single room that is quiet and free from frequent disturbances, he says.

I suggested that he do more studying in the day time and that he study at the library if he couldn't study at the house. We planned a study program and he said that he would try and hold himself to it.

For several weeks Harry came to my room almost every evening. We went over the next day's work and tried to find the difficult portions of his lessons. He kept his time sheets and studied as much as 8 hours per day according to schedule, but he felt that it wasn't helping him. He thought that it would be a help if he could find a good student with whom he might study. He felt that it would help him to keep his mind on his work and assist him in places where he was obviously weakened by a lack of high school preparation. I found a boy who was willing to do it but could not arrange a schedule until after Thanksgiving.

I advised this boy to see the psychiatrist again because I feel sure that he is fighting a conflict of some sort and that he will not be able to get along in his academic work here until he can get his own mind straightened out. I tried to arrange for an appointment, but the boy was unable to come at any of the times that I was able to get for him with the psychiatrist.

Two days after Thanksgiving I found the following note under my door, and Harry left school for another semester:

"Dear Mr. K.:

"Owing to the illness in my home [grandfather had had a stroke] and my condition in school, I am going home. Matters have been settled satisfactorily with the Registrar's Office and I hope to enter school again next semester. During my stay at home I am going to get help on my Math and English and see if I can't really get down to the bottom of the thing. I can see no reason why I should not. The greatest help will be the presence of father and mother.

"I sure wish to thank you for your kindness and willingness to help me.

"Pardon this hurried note,

"Sincerely yours,

"_____"

Case 201

Case 201 is greatly overweight but does not look as large as one might suppose from her photograph. She received "flunk" warnings at mid-semesters in English and in botany. She likes botany very much and wants to repeat the course if she fails the semester's work. She is having a hard time in English because her foundation in grammar is very poor. She went to parochial school all during her secondary school days. It was at this point in the interview that the student first mentioned her family.

Her father is sixty-eight years old and her mother fifty-five. The father has a strong and stubborn will—according to the girl; the mother is complaining and whining about her health all the time; and the girl is trying to get her way against opposition. The consequence is bedlam in the family. The reason she went to private school was because she couldn't stand it to live at home. Her mother and father never have gotten along together. Two days after they were married he was looking around for cobwebs, the daughter says she has been told. Her father is very fussy about little things and is "so persnickety." Her mother broke under the strain of this marital situation about five years ago and had a nervous breakdown. Since then she has been hard to live with. She thinks she is very delicate and can't do anything—except what she wants to do. Virginia and her sister, who is a little younger, have to get the meals, buy the food, and do the dishes. She gets so sick of it. Then her mother is always saying that she doesn't do anything, and that she doesn't love her, nobody knows how sick she is, etc. Virginia does not have much respect for her mother's sickness.

She says that two of her brothers could not stand the situation and left home. One ran away when he was sixteen and the other left when he was twenty-one.

She wants to live on the campus but would not ask her father for money to pay for board and room. She says he could well afford it, however.

Case referred to the psychiatrist for further consultation.

Report of the psychiatrist after interview of Case 201

Case 201 was willing to talk about her troubles and to repeat what she had told the first interviewer about her unfortunate home condition. Since she was 12 her life at home has been a torment, and she has finally grown very depressed about it. She showed the true signs of a real depression. Has contemplated suicide many times, although she has not thought out any particular method. Her life would be happy if some one were to hit her on the head and throw her in the lake. She said at first there was not a soul in the universe that she liked. Then she said that she liked her chum. Later in the interview she said that if she could have just what she wanted it would be to go away from home and live with her chum and her chum's mother, that they were both dears.

Her mother accuses her openly of all sorts of immoral acts. If she goes from the house her mother tells her that she must have been around with men. Asked if she ever did do such a thing, she admitted that at one time she did. Some years ago they were at a summer camp and she and her sister met two men and went around with them all summer on the sly. They knew that their mother would not permit it if she knew. Finally some neighbor woman thought it her duty to inform the mother. Her mother insisted that Virginia bring her man friend around, and the mother had a two-hour session with him and then told her that she thought he was a fine fellow. This, in spite of the fact that Virginia had never been introduced, which the mother thought was horrible. When the father came, however, the mother

changed her tune. The father raved and would hear nothing about the man and said the family would never go back to the summer camp again. She said she thoroughly despises both her father and her mother for their crookedness.

For three years she has been at a boarding school where there was absolutely strict supervision and had no chance to go with boys. It was at this boarding school that she got acquainted with the chum she would like to live with. This is not a homosexual affair. It is simply an attempt to get some one in life to whom she can give affection.

Evidently their home is a regular bedlam. She says that her mother has the most terrific temper that any woman ever could have. She yells at the top of her voice so she can be heard a block away. They all yell back and the music swells the breeze. She told in detail what happened yesterday (Sunday). Apparently it was a day of continual wrangling.

In all this she is very depressed. The tears came to her eyes several times and she began self-accusatory remarks. It must be her fault and she wished she were dead.

The Dean at the school she attended was good to her and she says he straightened her out pretty well. She must have told them at home about this Dean (a man) for she says that her mother made remarks to this effect: "I do not see how you ever made your grades at school, dumb as you are. There must have been something between you and the Dean so that he gave you passing marks."

She says her sister (Billy, she calls her) fights back and is not depressed by all this, but she has an older brother who does get very depressed. He has dark eyes and when he is depressed he is charming and so he gets all he wants. She never has gotten anything that she wants.

She was asked to come back for another interview, at which time she was urged to try to persuade her family, in some way,

to allow her to come to the campus to live. It was thought that it might be possible for her to live in one of the coöperative dormitories where she could work an hour or so a day to take care of part of her living expenses.

Interview of Case 201 the following fall

Case 201 told her father last semester that if he wanted her to come to school again this year, he would have to let her live on the campus. He promised that if she would go to school this year she could live in a dormitory. After she knew this, she did much better in her school work and came out with flying colors second semester. She is delighted with the coöperative dormitory where she is living. She has a fine roommate who studies when necessary and encourages her to do the same. She said she feels more at home in the dormitory than she does at home and so she is happy. She guesses she was meant to be with girls.

Her excess weight is one thing which still bothers her. She is tired most of the time, and her mother tells her it is just because she is so large. She has promised to see the physician again and do everything she tells her in order to reduce her excess weight and to feel more energetic.

I do not know whether the root of her trouble has been really corrected or not, but she is surely better adjusted outwardly this year than last. She is also getting more out of her college work. She is going to keep in touch with the Office.

Digest of Other Cases

Case 97

University student (girl) who has a phobia for cats and who has been for consultation before returned to talk the situation over further. She has not arrived at the cause of her phobia as yet, but is trying by free association methods to unearth anything that might have a relationship.

Case 44

Student came in of her own accord to ask about a problem in connection with her proposed marriage. She is engaged to a man 29 years of age who has a mother frantically in love with him. The mother has broken off every previous affair that he has had and vows she will never let him marry. They are determined that they will, but the girl wonders what will happen about her relationships with her mother-in-law. The girl's mother says that when the mother-in-law sees them married her fighting will be over. The boy in the case thinks that the mother-in-law will weaken when they have a child. The girl wants some assurance that she will weaken. The situation is complicated by the fact that the girl is an only child. We did not encourage her very much. Told her if she was willing to put up with the mother-in-law she could, but she could not expect the situation to be smooth in any event.

Case 59

One of the brightest students in Northwestern University who has always made an "A" average came with an anxiety neurosis. He asked us to keep his case profoundly secret as it would hurt him if it got out that he was having trouble. Therefore his identity cannot go into even the confidential records of the Office. He came back for a series of conferences. The boy's situation was mild and was cleared up in a few interviews.

Effort Made to Give Treatment Before Cases Reach Crises.— These cases are only a few of a very large number that have been handled on a mental hygiene basis by the Office. There have been other cases, cases of homosexuality, kleptomania, despondency with suicidal tendency, almost every type of which one could think, in mild or serious form. The effort has always been to apprehend a case in its early stage and give prophylactic treat-

ment; to do something constructive wherever a weakness was detected before that weakness brought about a crisis. Whether due to accident or to the mental hygiene program, there have been no suicides or other student misfortunes of a serious nature since the mental hygiene program was inaugurated.

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PART THREE

Personnel Research

Chapter Twelve

RESEARCH: A FUNCTION OF THE PERSONNEL DEPARTMENT

Service, as a function of personnel work, has been described in its various aspects. Research is an equally important function, and, in the Personnel Office at Northwestern University, it goes hand in hand with personal service. It has been a policy of the Office for every member of the staff to participate in both service and research, for if the interviewers understand the techniques of personnel research, the information which they discover is of greater value for later research investigations; and if those who are mainly interested in research also interview, they come to realize the practical value of their work.

Various researches have been made in an effort not only to arrive at a better picture of the student material with which the University has to deal, but also to arrive at a clearer appreciation of some of the truths of differential psychology as they apply to college students generally.

Holbrook's Study.—For a period of three years, much of the effort and time of certain members of the staff of the Personnel Office, as well as that of certain interested faculty members, was given to a study of the characteristics of certain scholastic groups. Mrs. Dorothy Holbrook, who was for two and one-half years a member of the staff of the Office and was for most of that time also Secretary to the Faculty Committee on Probation Students, has utilized the most extensive study that was made by the Office in a series of articles published in *Industrial Psychology.*[1] Since

[1] Mrs. Holbrook's articles are to be found in the January, March, April, and August, 1927, issues of *Industrial Psychology.*

she has analyzed the data in such adequate detail in those articles, her findings will be reproduced here only in condensed form. (See Table XII and pages following.)

Comparison of Probation, Average and Superior Scholarship Groups.—The study was undertaken by the staff of the Personnel Office as a comparison of probation, average, and superior scholastic groups. The general objective of the study was to discover, if possible, what factors operated to place students in these groups or, at least, what factors seemed to be characteristic of each group. The probation group included all of those students who, because they had failed to attain a scholastic standard set by the faculty, were on probation during the second semester of the year 1923-24 and subject to exclusion were they to fail to attain a better record during that semester. The average group consisted of 111 men and women whose point average for the preceding semester had fallen between 1.000 and 1.2000.[2] The superior group included 88 students whose point average up until the time of the study was 2.2500 [2] or higher.

TABLE XII

COMPARISON OF PROBATION, AVERAGE, AND SUPERIOR GROUPS

	Probation	*Average*	*Superior*
I. Number			
1. Freshmen	126	..	..
(1) Women	67	..	..
(2) Men	59	..	..
2. Sophomore	49	49	42
(1) Women	19	31	20
(2) Men	30	18	22
3. Junior	16	42	27
(1) Women	9	27	19
(2) Men	7	15	8
4. Senior	9	20	19
(1) Women	4	13	14
(2) Men	5	7	5
5. Advanced Standing	43	..	..
(1) Women	18	..	..
(2) Men	25	..	..

[2] See page 47 for explanation of grading system.

TABLE XII (*continued*)

	Probation	*Average*	*Superior*
6. Total	243	111	88
(1) Women	117	71	53
(2) Men	112	40	35
II. Average dates of birth			
1. Freshmen	5–15–04	..	..
(1) Women	10–29–04	..	..
(2) Men	11–12–03	..	..
2. Sophomores	8– 1–03	9–15–04	2–13–04
(1) Women	1– 7–04	1– 1–04	9– 7–04
a. Extreme cases omitted	..	9–21–04	..
(2) Men	4–14–03	9– 5–04	8– 7–03
3. Juniors	6–28–02	10–18–02	2–18–02
a. Extreme cases omitted	..	..	9–10–02
(1) Women	4–19–03	7–16–00	9–23–01
a. Extreme cases omitted	..	3– 2–02	7–27–02
(2) Men	6–13–01	2– 7–03	2– 2–03
4. Seniors	3–19–01	10–18–01	10–31–01
(1) Women	8–17–01	7– 4–01	7–20–01
(2) Men	10–20–00	5– 1–02	8–26–02
5. Advanced Standing	11–27–02	..	..
(1) Women	3–13–04	..	..
(2) Men	12–22–01	..	..
III. Mental alertness scores [3]			
1. No. of cases	216	71	67
2. Range	78–14	94–30	83–40
3. Median	53	56	62
4. Quartile deviation	6	6.7	7
5. Average	52.3	55.7	60.5
IV. Point averages			
1. No. of cases	226	111	88
2. Range	1.2666–2.5333	.1764–1.9400	1.8958–3.00
3. Median	.3333	1.0131	2.5317
4. Quartile Deviation	.4326	.2038	.4064
V. Parents			
1. Point averages of students with foreign-born parents compared with those of native-born parents			
A. No. of cases—total	197	75	88
(1) Both parents foreign-born	29	11	13
(2) One parent foreign-born	30	8	12
(3) Both parents native-born	138	56	63

[3] See also Figures 9, 10, and 11 (pp. 150 ff.).

TABLE XII (*continued*)

	Probation	*Average*	*Superior*
B. Percentages of group			
(1) Both parents foreign-born	14.7	14.6	15
(2) One parent foreign-born	15.2	10.6	14
(3) Both parents native-born	70	74	71
C. Median point average			
(1) Both parents foreign-born	.3333	.8762	2.4888
(2) One parent foreign-born	.4852	.8932	2.5280
(3) Both parents native-born	.3125	.9725	2.5335
2. Point averages of students compared with education of parents			
A. No. of cases—total	192	78	88
(1) One or both parents with college experience	110	43	40
(2) One or both parents with high school experience	55	21	30
(3) Neither parent with more than grade school experience	27	14	18
B. Percentage of group			
(1) One or both parents with college experience	57	55	46
(2) One or both parents with high school experience	29	26.9	34
(3) Neither parent with more than grade school experience	14	18.1	20
C. Median point average			
(1) One or both parents with college experience	.3123	1.0266	2.5317
(2) One or both parents with high school experience	.3750	1.0131	2.5408
(3) Neither parent with more than grade school experience	5696	.7655	2.4299
VI. Brothers and sisters			
1. Students with brothers and sisters			
A. Number	156	63	61
B. Per cent	77.2	77.7	69
2. Students without brothers and sisters			
A. Number	46	18	27
B. Per cent	22.7	22.2	31
3. Total number of brothers and sisters	363	137	146
4. Average number of brothers and sisters per student	1.7170	1.9827	1.6000
5. Students with brothers and sisters of college experience			
A. Number	76	39	30
B. Per cent	37.6	48.2	34

TABLE XII (*continued*)

	Probation	*Average*	*Superior*
6. Students without brothers and sisters of college experience			
A. Number	126	42	58
B. Per cent	62.3	51.8	66
7. Total number of brothers and sisters with college experience	110	66	49
8. Average number of brothers and sisters with college experience per student for entire group	.5445	.8148	.5000
9. Average number of brothers and sisters with college experience per student for these having them	2.32	1.6923	1.6000
10. Median point average for those having brothers and sisters with college experience	.3394	1.0212	2.6420
11. Median point average for those not having brothers and sisters with college experience	.3875	.9276	2.4707
VII. Analysis of high school factors			
1. Grouped according to location			
A. No. of cases from			
(1) Chicago	67	36	26
(2) North Shore	39	27	18
(3) Other High Schools	117	48	44
B. Per cent of total group			
(1) Chicago	30	32	30
(2) North Shore	18	24	20
(3) Other High Schools	52	43	50
C. Median Point Average			
(1) Chicago	.3571	.9085	2.5240
(2) North Shore	.5595	.9725	2.4781
(3) Other High Schools	.2664	1.0925	2.5430
2. High School quarters compared with point average			
A. No. in each group			
(1) First quarter	30	26	74
(2) Second quarter	34	20	5
(3) Third quarter	42	19	..
(4) Fourth quarter	40	4	..
(5) Unclassified	80	42	9
B. Percentages in each			
(1) First quarter	13	23.4	84
(2) Second quarter	15	18.1	6
(3) Third quarter	19	17.1	..

TABLE XII (*continued*)

	Probation	*Average*	*Superior*
(4) Fourth quarter	18	3.6	..
(5) Unclassified	35	37.8	10
C. Median point average			
(1) First quarter	.6668	1.1855	2.5497
(2) Second quarter	.2666	.8077	2.3999
(3) Third quarter	.2917	.9725	..
(4) Fourth quarter	.5727	.7223	..
(5) Unclassified	.2167	1.0591	2.1666
D. Range of point average			
(1) First quarter	2.5333–.9333	.6856–1.4680	3.0000–2.0514
(2) Second quarter	1.9333–1.2666	.1041–1.7368	2.4509–2.2888
(3) Third quarter	2.0714–1.1325	.2245–1.8461	..
(4) Fourth quarter	2.2000–.8125	.3233–1.0217	..
(5) Unclassified	1.8571–.9375	.1764–1.9714	2.7561–1.8958
3. Grouped according to high school records			
A. No.			
(1) Group not passing all high school courses	88	22	6
(2) Group passing all high school courses	75	46	82
B. Per cent			
(1) Group not passing all high school courses	54	32.3	7
(2) Group passing all high school courses	46	67.7	93
C. Median point average			
(1) Group not passing all high school courses	.2666	1.0065	2.2779
(2) Group passing all high school courses	.6000	1.0472	2.5409
4. Grouped according to high school honors (scholastic and otherwise)			
A. No.			
(1) Those participating	115	45	64
(2) Those not participating	127	30	24
B. Per cent			
(1) Those participating	48	60	73
(2) Those not participating	52	40	27
5, Grouped according to no. of high schools attended			
A. No.			
(1) Attending one high school	193	78	69
(2) Attending two H. S.	39	23	17
(3) Attending three or more H. S.	11	6	2

TABLE XII (*continued*)

	Probation	*Average*	*Superior*
B. Per cent			
(1) Attending one high school	79	72.9	79
(2) Attending two H. S.	16	21.5	19
(3) Attending three or more H. S.	5	5.6	2
VIII. Analysis of college factors			
1. School residence compared with point average			
A. Number			
(1) Living at home	119	44	47
(2) Living in dormitories	58	23	33
(3) Living in fraternity houses	37	13	8
B. Per cent			
(1) Living at home	56	55	53
(2) Living in dormitories	27	28.7	38
(3) Living in fraternity houses	17	16.2	9
C. Median point average			
(1) Living at home	.3529	.9337	2.4913
(2) Living in dormitories	.3902	1.0888	2.5625
(3) Living at fraternity houses	.2507	.9813	2.4613
2. Grouped according to entrance conditions			
A. Number			
(1) With no entrance conditions	162	84	76
(2) One entrance condition	75	24	12
(3) Two or more entrance conditions	6	3	..
B. Per cent			
(1) With no entrance conditions	67	75.6	86
(2) One entrance condition	31	21.7	14
(3) Two or more entrance conditions	2	2.7	..
3. Grouped according to colleges previously attended			
A. Number			
(1) No college previously attended	173	65	74
(2) One college previously attended	60	13	14
(3) Two or more colleges previously attended	10	2	..
B. Per cent			
(1) No college previously attended	71	80	84
(2) One college previously attended	25	17	16
(3) Two or more colleges attended	4	3	..
4. Grouped according to use of car			
A. Number			
(1) Yes	26	12	10
(2) Occasionally	14	5	3
(3) No	156	50	69
(4) No report	47	44	6

TABLE XII (*continued*)

	Probation	*Average*	*Superior*
B. Per cent			
(1) Yes	11	11	11
(2) Occasionally	6	4	4
(3) No	64	45	78
(4) No report	19	40	7
5. Grouped according to Furtherance-Hindrance Factors			
A. No. of cases			
(1) Health factor	210	61	87
(2) Preparation for college	208	72	87
(3) Place of study	208	72	87
(4) Methods of study	204	71	86
(5) Opinion of course of study	208	69	87
(6) Campus activities	198	71	84
(7) Concentration	215	72	87
(8) Outside work	73	22	43
(9) Ratings of professor	934	297	407
B. Arithmetic mean and interpretation			
(1) Health factor	6.6616	7.7	7.01
(2) Preparation for college	6.4279	6.7	8.10
(3) Place of study	6.4279	6.7	6.80
(4) Methods of study	5.0931	5.2	6.60
(5) Opinion of course of study	6.4279	6.3	7.50
(6) Campus activities	6.3181	7.7	6.10
(7) Concentration	5.0883	5.3	6.70
(8) Outside work	4.5754	4.8	5.60
(9) Ratings of professors	7.1723	7.0	6.90
6. Grouped according to time distribution			
A. Intercollegiate athletics			
No. of cases	213	71	83
(1) No. participating	15	13	4
(2) Per cent participating	7	18.3	5
(3) Total no. hours per week	183	124	54
(4) Average no. hours per week for total group	.85	1.7464	.65
(5) Average of hours per week for group participating	12.2	9.5384	13.5
B. Intra-mural athletics			
No. of cases	213	52	83
(1) No. participating	29	13	7
(2) Per cent participating	13.6	18.3	8
(3) Total no. hours per week	160	52	25
(4) Average no. hours for total group	.75	.7295	.3
(5) Average no. hours for group participating	5.5	4.0	3.5

TABLE XII (*continued*)

	Probation	*Average*	*Superior*
C. Exercise			
(1) No. participating	118	38	53
(2) Per cent participating	55.3	54.6	64
(3) Total no. hours per week	656	173	246
(4) Average no. hours per total group	3.07	2.4366	2.9
(5) Average no. hours for group participating	5.5	4.6578	4.6
D. Publications			
(1) No. participating	12	6	11
(2) Per cent participating	5.6	8.4	13
(3) Total no. hours per week	36	33	63
(4) Average no. hours for total group	.16	.46	.7
(5) Average no. hours for group participating	3	5.5	5.7
E. Dramatics, debate and music			
(1) No. participating	33	12	19
(2) Per cent participating	15.4	16.9	23
(3) Total no. hours per week	183	54	83
(4) Average no. hours per week	.85	.76	1.0
(5) Average no. hours for group participating	5.5	4.5	4.3
F. Other campus activities			
(1) No. participating	48	33	48
(2) Per cent participating	22.5	46.4	58
(3) Total no. hours per week	130	123	196
(4) Average no. hours per week for total group	.61	1.7	2.4
(5) Average no. hours for group participating	2.7	3.7	4
G. Campus social activities			
(1) No. participating	165	65	72
(2) Per cent participating	77.4	91.5	86
(3) Total no. hours per week	585	251	195
(4) Average no. hours for total group	2.74	3.53	2.30
(5) Average no. hours for group participating	3.5	3.8	2.7
H. Outside social activities			
(1) No. participating	192	65	79
(2) Per cent participating	90	91.5	95
(3) Total no. hours per week	1618	636	676
(4) Average no. hours for total group	7.59	8.9	8.1
(5) Average no. hours for group participating	8.4	9.8	8.6
I. Fraternity duties			
(1) No. participating	110	38	47
(2) Per cent participating	51.1	54.6	56

TABLE XII (*continued*)

	Probation	*Average*	*Superior*
(3) Total no. hours per week	438	184	224
(4) Average no. hours for total group	2.05	2.59	2.7
(5) Average no. hours for group participating	3.9	4.94	4.8
J. Outside work			
(1) No. participating	75	26	43
(2) Per cent participating	35.2	36.6	52
(3) Total no. hours per week	1480	457	714
(4) Average no. hours for total group	6.94	6.4366	8.6
(5) Average no. hours for group participating	19.7	17.57	16.6
(6) Median point average			
(a) Those participating	.4117	1.0215	2.5625
(b) Those not participating	.3123	1.0000	2.4983
(7) Range of point averages			
(a) Those participating	2.5333–1.1325	1.9714–.2500	2.9642–1.9803
(b) Those not participating	2.2000–1.2666	1.7368–.1041	3.0000–1.8953
K. Sleep			
(1) Total no. of hours	11924	4016	4545
(2) Average no. of hours	55.9	56.56	54.7
L. Meals			
(1) Total no. of hours	2561	855	904
(2) Average no. of hours	12.02	12.01	10.9
M. Transportation			
(1) No. participating	182	58	75
(2) Per cent participating	85.4	71.2	90
(3) Total no. hours per week	1455	454	480
(4) Average no. hours for total group	6.83	6.3	5.8
(5) Average no. hours for group participating	7.9	7.8	6.4
N. Class and laboratory			
(1) Total no. hours	3478	1179	1175
(2) Average no. hours	16.3	15.2	17.7
O. Study			
(1) Total no. hours	4818	1462	1960
(2) Average no. hours	22.6	20.595	29.6
(3) Comparison of point average and hours of study			
(A) According to quarters determined by point average in group			
a. First quarter (range)	2.5333–1.7972	1.9714–1.3364	3.0000–2.6952
(a) No. of cases	50	11	22

TABLE XII (*continued*)

	Probation	*Average*	*Superior*
(b) Per cent of cases	25	15.6	25
(c) Average no. of hours	21.7	15.5	26.6
b. Second quarter (range)	.7728–.3529	1.0000–1.2888	2.6893–2.5333
(a) No. of cases	50	28	22
(b) Per cent of cases	25	39.4	25
(c) Average no. of hours	23.3	19	24.2
c. Third quarter (range)	.3455–.0714	.9813–.7436	2.5302–2.3166
(a) No. of cases	50	19	22
(b) Per cent of cases	25	26.7	25
(c) Average no. of hours	22.4	22	21.5
d. Fourth quarter (range)	.1152–1.2666	.6856–.1041	2.3111–1.8958
(a) No. of cases	50	13	22
(b) Per cent of cases	25	18.3	25
(c) Average no. hours	23.5	23.9	22.8
(B) According to quarter determined by no. of hours of study per week			
a. First quarter (range)	56–29 hrs.	39–25 hrs.	45–30 hrs.
(a) No. of cases	46	16	27
(b) Per cent of cases	23	22.5	31
(c) Median point average	.2596	.8342	2.6580
b. Second quarter (range)	28–23 hrs.	20–24 hrs.	29–23 hrs.
(a) No. of cases	52	26	16
(b) Per cent of cases	26	36.6	18
(c) Median point average	.2839	.9804	2.4630
c. Third quarter (range)	22–18 hrs.	15–20 hrs.	21–18 hrs.
(a) No. of cases	53	18	22
(b) Per cent of cases	27	25.3	25
(c) Median point average	.4613	1.0627	2.4735
d. Fourth quarter (range)	17– 5 hrs.	15– 7 hrs.	17– 6 hrs.
(a) No. of cases	49	11	23
(b) Per cent of cases	24	15.6	26
(c) Median point average	.3333	1.0930	2.5333
P. Leisure and miscellaneous			
(1) Total no. hours per week	6083	1869	2104
(2) Average no. hours per student	28.5	26.3	25.0
7. Vocational preference			
A. No. of cases			
(1) None	43	16	5
(2) Several	53	36	35
(3) One	102	28	48

TABLE XII (*continued*)

	Probation	*Average*	*Superior*
B. Per cent			
(1) None	21.2	20	5
(2) Several	28.5	45	40
(3) One	50.2	35	55
C. Median point average			
(1) None	.4274	1.0660	2.3469
(2) Several	.4888	.9804	2.5148
(3) One	.2586	.9772	2.5409

Ages of Groups.—Table VIII and Figure 8, pages 56 and 57, have already shown the tendency that is again evidenced in the data presented on page 141 of Table XII; namely, for the superior students to be younger than the inferior ones.

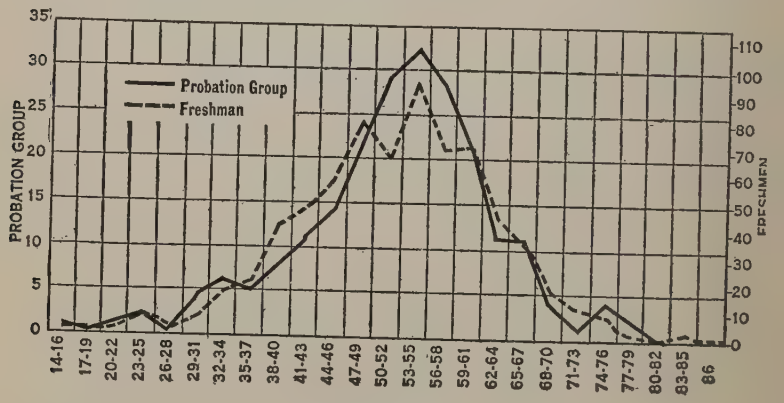


FIGURE 9
PROBATION GROUPS
CHART SHOWING A COMPARISON OF THE DISTRIBUTION OF MENTAL ALERTNESS SCORES OF THE PROBATION GROUPS AND THE FRESHMEN (CLASS OF 1927

Mental Alertness.—Mental alertness does not appear, from the data presented under Roman numerals III on page 000 and in Figures 9, 10, and 11, to be the most important factor in determining a student's scholastic success. In Figure 9 is shown a comparison of the distribution of mental alertness scores of the proba-

tion group and the freshman (1927) class. The lower range of the two curves is identical. The upper limit is slightly higher

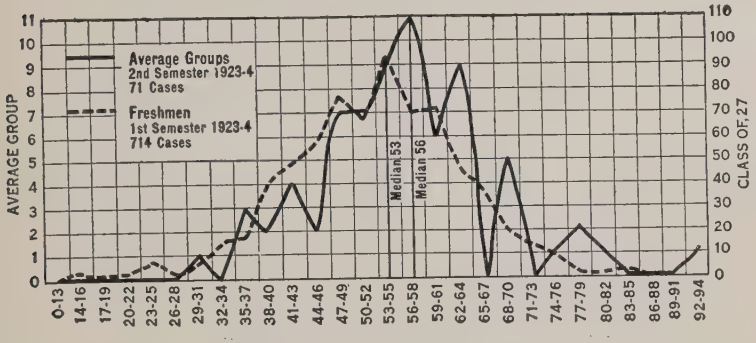


FIGURE 10

THIS CHART SHOWS A COMPARISON OF THE DISTRIBUTION OF MENTAL ALERTNESS SCORES FOR THE AVERAGE GROUP AND L. A. CLASS OF 1927

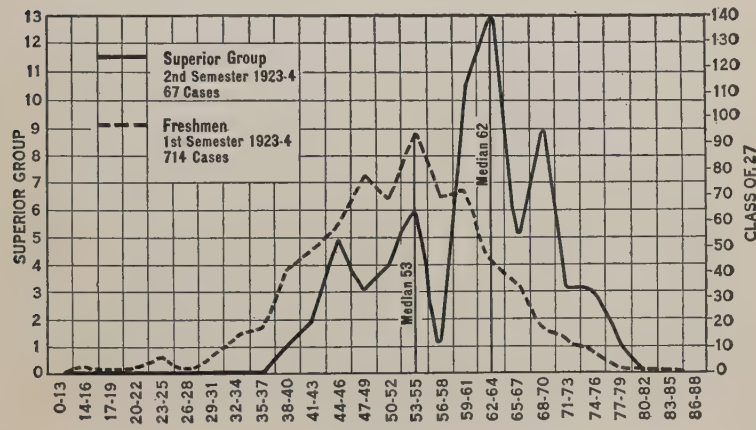


FIGURE 11

THIS CHART SHOWS A COMPARISON OF THE DISTRIBUTION OF MENTAL ALERTNESS SCORES FOR THE SUPERIOR GROUP AND L. A. CLASS OF 1927

for the freshmen. The medians coincide and differ little from their respective averages. The quartile deviation is less for the probationers. The curve of the delinquent students is even more

regular than that of the freshmen in this instance, and substantiates other data which show the average intelligence of the probation group to be as high as that of the general student body.

Although the scores of the probation students vary not at all from those of the general student body, most of the scores of the superior students lie in the upper limits. Only one-fourth of their scores lie below the average score of 53, and their average is 62. Evidently most of the superior students come from the upper half of the mental alertness level, but that explains neither the failure of others in the upper half nor the scholastic success of those sixteen superior students whose scores ranged from 40 to 53.

Is Mental Alertness the Best Predictive Measure?—The research results presented on pages 44-54 and shown again in this study: namely, that mental alertness is not the best predictive measure of academic success in college, are contrary to the findings of Bucknell College, the University of Missouri, Transylvania College, the University of Virginia, Wells College, and others who report that the American Council on Education tests are more diagnostic of what students will do in college courses than their entire four years of high school or other preparatory study.

Wood found the correlation between score on the Thorndike intelligence test and the two-year scholarship record of 111 students in Columbia College to be +.67, and the correlation of two-year scholarship and secondary school marks to be +.26. Wood found also that "the combination of Thorndike and Regents' scores, equally weighted, raises the total correlation from .55 to .65, while the addition of high school scores to the combination with the best possible weighting raises the total correlation further to .66, an increase of only .005."[4]

Terman declares that the Thorndike intelligence tests have given r's of +.70 with college success, as compared with an r of

[4] Wood, Ben D., *Measurement in Higher Education*, World Book Co., 1923, p. 85.

only +.45 between four years of high school mark and college success.[5]

On the other hand, we find the Commission on Scholastic Aptitude Tests stating in their second annual report that, "in general, high school averages are a somewhat better index of the quality of college work than are scores on this test." [6]

Jones has found that if and when students from the lower fifths of their high school graduating classes could be adequately motivated, an intelligence test score would give superior prediction to even fourth-year average marks from high school; and that when both were combined, the indices may be raised to measures that insure fair prediction (*i.e.*, +.7 or above).[7]

The results of all these studies, as well as of the research at Northwestern, would seem to indicate that the best policy is to employ both criteria: intelligence test score and high school standing.

Family Factors.—We find no clear evidence that the place of birth of the parents affects the scholastic success or failure of a student.

It is interesting to note that about one-third of the parents have had college training and, in 16 per cent of the cases, both the mothers and fathers have attended college. This indicates that the college men and women of a generation ago are supplying the University with a greater percentage of students in proportion to their numbers than the non-college parents.

In general, less than 25 per cent of the students studied in these groups are "only children," and the remaining 75 per cent average nearly two brothers and sisters each. Close scrutiny of the figures does not reveal, however, that it is an advantage to have brothers and sisters with college experience.

[5] *Ibid.*, p. 4.

[6] *Second Annual Report of the Commission on Scholastic Aptitude Tests*, 1927, p. 27.

[7] Jones, Edward S., "Predictions from High School Performance," *School and Society*, March 17, 1928, Vol. XXVII, No. 690, p. 339.

High School Factors.—An analysis of high school factors shows that no particular geographical area produces most of the poor or most of the good students. Figure 7 shows that the type of preparatory school does apparently have some relation to scholastic success in college, but it seems to make no difference where the high school is located so long as it is of the right type.

Scholastic success in high school is the one best means of predicting scholastic success at Northwestern, as has already been pointed out in Chapter V. Although the reliability of the figures in this study as presented on pages 143 and 144 is affected to some extent by the fact that no recognition was taken of the size of the high school graduating class from which each student came in comparing high school quarters with college point average, nevertheless it is significant to know that of the 88 people in the superior group, 74 were in the first quarter, five were in the second, and the remaining nine were unclassified. Not one third- or fourth-quarter student was found among the superior students, whereas less than one-half of the probationers, whose classifications were known, were in the upper two quarters. Clearly, most students graduated in the lowest quarters of their classes cannot hope for more than mediocre scholastic attainments.

While it is true that students with low standing in high school cannot expect to do well in college, those who have done well in high school do not always succeed in college. One of the reasons for this is that a larger proportion of first- and second-quarter students enter college than do those from the third and fourth quarters; hence only a portion of these can remain in the upper half of their college classes. College is more highly selective than high school.

The data on high school failures bring out a marked difference between the three groups studied. More than half of the probationers have at least one failure to their discredit, about one-third of the average students have failed in a high school course, whereas less than one-tenth (only 7 per cent) of the superior

students have any high school failures. Seven of the nine failures among superior students were in mathematics courses, with one failure each in Latin and history. The language failures in the probation group slightly exceeded those in mathematics and together constituted four-fifths of the total number in that group. Another interesting fact which was noted in the superior group resulted from a brief study of the mental alertness scores of those students who had failed in some high school course. Their median score was eight points lower than the average for the entire superior group.

In each of the three scholastic groups the point average was compared with high school failures. In each case the group which has not passed all high school subjects had a lower median average than the group whose members had passed satisfactorily all courses taken. The work done in this connection seems again to indicate that some of the forces which operate against scholastic success in college are also actively at work during the high school period.

The study of high school honors is not significant because the information was not sufficiently well standardized to give reliable results. This is due to the fact that the term "high school honors" was not accurately enough defined in the minds of interviewers and those interviewed.

Very few superior students attended more than two high schools (see pages 144, 145). While the differences are very slight, there is some possibility that a relation exists between the number of high schools attended and scholastic achievement in college. Whether or not the changes themselves affect the scholastic progress, or whether these two factors are both symptoms of the same disorder, is still a matter of conjecture.

College Factors.—A study of school residence (p. 145) seems to indicate that dormitory residence may be slightly more conducive to academic success than residence at home or in a fraternity house.

The study of the three groups according to the number of their

entrance conditions (p. 145) is not so meaningful as it might be, for no distinction was made here as to whether the entrance conditions were due to failures of required subjects in high school, or whether a student, ignorant, perhaps, of Northwestern's entrance requirements, merely neglected to take a sufficient amount of some subject required for entrance. It can readily be seen that these are two entirely different sorts of factors. There is some evidence in the figures, however, that indicates that the poorer type of student rather than the ill-advised one predominates among those who enter with two or more conditions.

The tradition that the possession of several undergraduate alma maters as a rule goes hand in hand with scholastic mediocrity is corroborated by the findings of this study (see page 145). The probation students are the least stable in this respect. They have the lowest percentage of students who have come directly from high school to Northwestern, and the highest percentages both for students who have attended at least one other college or university prior to their entrance here, as well as for those attending two or more universities. Fewer of the best students at Northwestern have been to other colleges, and of those who have, the majority have come here from smaller institutions. Furthermore, no one in the superior group has previously attended more than one college. This by no means implies that the "best students" come immediately to Northwestern, but rather that a student who is doing excellent work in one school less often has occasion to change.

Because the same proportion from all three groups report the constant or occasional use of an automobile (pp. 145, 146), one wonders whether the use of a car is, after all, a distracting influence, or whether the proper explanation of these figures is that the use of a car is an added distraction to the one who is constantly having his interest diverted from his work anyway, and it is an aid to the student who endeavors to save time and effort in order to work effectively.

Furtherance-Hindrance Factors.—A consideration of the furtherance-hindrance factors as listed on page 146 reveals the fact that the probation students generally picture themselves as laboring under greater difficulties than do the members of the other two groups. They rated their health lower than the others and below the average for college students. The superior students, on the other hand, rated their preparation for college, their places and methods of study, their courses and ability to concentrate higher than did the average or probation students. Usually the ratings for the average group were between the other two groups, but agreed more nearly with probation ratings. The average students rated campus activities as good rather than bad, whereas the others rated them as neither very harmful nor helpful. In the matter of outside work, the members of the average and probation groups consider that it was a hindrance rather than a benefit in promoting scholarship. The superior students felt that it made no difference in their work. It is interesting to note that estimates of the instruction given by the various professors varied inversely to the degree of success obtained by the group. The differences were slight, but the probationers rated their instruction more favorably than did the others. Whether this is because the superior students felt more free to express their opinions, or whether critical-mindedness is one attribute of the brighter group, cannot be determined from the figures.

Extra-curricular Activities.—Two things tend to destroy the reliability of comparisons of the time spent on various activities by members of these different groups. (See data on pages 146, 147, 148, 149 and 150.) A certain proportion of the probationers are prohibited, by University rule, from participating in various extra-curricular activities. In addition, the probation group includes in its ranks freshmen, while the other two groups were chosen on a basis of previous scholarship in such a way as to eliminate freshmen from their ranks. This makes the potential differences between the three groups still greater when they are

compared for time distribution. Therefore, while the average group has 18.3 per cent of its members participating in intercollegiate athletics, as contrasted with the superiors' 5 per cent and the probationers' 7 per cent, it must not be forgotten that a smaller percentage of the probationers are eligible for such competition. In the case of intra-mural athletics, exercise, dramatics, debate and music, campus social activities, outside work, and even leisure, sleep, meals, and transportation, the average number of hours devoted weekly to these items by those participating is greater among the probation students than it is among the superior ones. Every one does not participate in each of these activities, but there seems to be evidence that the probation students have not a sufficient number of hours in their week to enable them to carry creditably all of the projects undertaken by them. When the distracted state of mind, which must ensue as a result of this impossible attempt to reconcile interests and time, is added, one of the reasons for academic delinquency may be apparent.

Study.—Criticism of the validity of statements made by students concerning the amount of time spent in study may be offered. That a probation student's estimate of time spent in this fashion may be colored by his feeling that he ought to study a certain number of hours seems plausible, just as it seems highly probable that a student who has achieved scholastic success may be inclined to belittle the effort entailed. If this be true, it but accentuates the difference in these two types of students; for the probation students by their own confession admit that they study on the average at least one hour a week less than the superior students.

The amount of time which a student spends in study during the course of a week may be indicative of his success in the classroom. The person who "never studies" is a popular example of one extreme in failures. However, too much time devoted to studying may be equally significant, for there is also the type of student who spends a great many hours on his work with dis-

couragingly small returns. The amount here is doubtless merely a symptom, and the cause may lie in inadequate preparation, physical condition, or a distracted state of mind; both these extremes are represented in the probation group which has the largest range of hours spent in study of any of the three.

Outside Work.—An analysis of the amount of time spent in outside work (see page 148) again reveals the fact that beyond a certain point, outside work is usually detrimental. Up to that point, it seems to be helpful to college work. Undoubtedly a student hindered by such factors as low mental alertness and poor high school record reaches the danger point in number of hours of outside work sooner than does the naturally more capable student. A group difference in number of hours of outside work is apparent here which seems to justify the probation students' rating outside work as a greater hindrance than did the superior students, for the probationers worked on the average three hours more each week.

Vocational Preference.—One of the distinguishing features of the superior group was revealed in the matter of vocational pref erence. They seemed to have a better conception of why they came to college and of what they would like to do at the completion of their academic life. This purpose which characterized them may be illustrated by the fact that only five per cent of this group had no conception of what they would like to do after graduation, whereas at least 20 per cent, or one-fifth of the members of the other groups, were in this quandary.

As a general conclusion to this comparison of superior, average, and probation groups, it was decided that no one factor was sufficient to designate a student for a certain group. Failure or success seems rather to result from a combination of circumstances, for some of which no accurate means of evaluation have as yet been evolved.

Combinations of Factors Handicapping Scholastic Success.—In a study which followed the foregoing, the Personnel staff

attempted, in a rather crude manner, to discover factors bearing on scholastic standing by defining certain objective conditions which seemed to be handicaps to scholastic success and, by grouping these in various ways, to discover combinations of handicaps which might possibly show such a high degree of relationship with scholastic failure that they could be experimented with to discover their prognostic value.

The handicaps, as eventually defined, were as follows:

I. Poor preparation—attributed to any student who was graduated in the lowest or fourth quarter of his high school class.

II. Poor health—mentioned in the student's record blanks as such or rated as below 5 on the furtherance-hindrance scale by the person interviewed (see pages 92 and 93).

III. Low mental alertness—a score below 40 on the Scott Company test.

IV. School interruptions—two or more interruptions after sixth grade, disregarding the usual change from grade school to high school.

V. High school failure—failure in two or more high school subjects.

VI. Lack of scholastic interest—mentioned by the interviewer.

VII. Social maladjustment—less than five hours a week devoted to campus activities, except in the case of Evanston students, for whom five hours of outside social activity might be substituted.

VIII. Distracting home conditions—used only in extreme cases where mentioned in the interview, and then usually to denote some family crisis which has arisen during the preceding semester, such as a death in the immediate family, or the separation of the parents.

IX. Consuming interest—15 hours or more spent on any one interest or activity other than work, study, or outside social activity.

X. Outside work—28 hours or more per week.

XI. 15 hours or more of campus activities.

XII. 15 hours or more of outside social activities.

XIII. 25 hours or more of XI and XII in combination.

XIV. 25 hours or more of either XI or XII in combination with outside work.

A complete report of this study also is given in Mrs. Holbrook's articles already mentioned. It is sufficient here to say that when the groups of probation, average, and superior students were analyzed to discover the extent to which combinations of these objectively defined handicaps operated among them, the results showed a positive tendency: that is, for the probation students to be heavily handicapped, the average students less handicapped, and the superior students still less handicapped. One-fourth, or 25 per cent, of the superior group, 13 per cent of the average, and none of the probation group were free from handicaps. Furthermore, only one of the superior students had as many as four handicaps, while 12 per cent of the average group and 28 per cent of those on probation who failed had either four or more. (See Tables XIII and XIV.)

The results of this experiment would seem to warrant further study. Particularly might it be profitable to define some apparent advantages and combine these with handicaps, since a handicap of 30 hours of outside work, for a superior student, may be overbalanced by some positive strength in scholastic aptitude and physical energy. Investigation might show fewer advantages and more handicaps, on the whole, among the probationers, and more advantages and fewer handicaps, on the whole, among the superior students.

Not only has the probation group been compared with average and superior groups, it has also undergone some comparison with whole classes. One study made (see Table XV) compared the probation students of all classes with all the freshmen of the class of 1926 who were not on probation.

Comparison of Probation Students and Class of 1926.—Whether by accident or whether because real tendencies exist, we find the

TABLE XIII

HANDICAPS OF THE SUPERIOR, AVERAGE AND PROBATION GROUPS

(Figures Represent Percentages)

	I	II	III	IV	V	VI	VII	VIII	IX	X	*General Interests*			
	Poor Preparation	Poor Health	Low Mental Alertness	School Interruptions	High School Failures	Lack of Scholastic Interest	Social Maladjustment	Distracting Home Conditions	Consuming Interest	Outside Work	XI Campus Activities	XII Outside Social Activities	XIII Campus and Social Activities	XIV Outside Work and Campus or Social Activities
Superior	..	12	..	2	3	2	17	1	6	12	12	10	22	31
Average	3	9	7	15	10	13	13	3	6	10	7	7	37	31
Probation	19	24	9	16	18	19	17	5	8	10	11	10	11	19
Off[a]	26	19	5	10	16	22	13	3	6	6	12	12	12	19
In[b]	14	17	10	9	12	12	18	4	9	6	5	10	9	13
Out[c]	16	37	13	28	26	22	19	7	9	19	16	7	13	24

[a] The *Off* group includes the 77 members (37%) of the entire probation group who have removed their probation.
[b] The *In* group includes those who have successfully completed their first semester of probation (77, or 27%).
[c] The *Out* group includes those who were excluded at the end of the semester (54, or 26%).

TABLE XIV

Group	Average Number of Handicaps	Total	Number Having Handicaps						Percentage Having Handicaps					
			0	1	2	3	4	5	0	1	2	3	4	5
Superior ..	1.9	86	22	28	24	11	1	..	25	33	28	13	1	..
Average...	1.7	67	12	19	19	11	5	1	19	28	28	16	7	2
Probation.	1.9	208	24	73	48	39	17	7	12	35	23	19	8	3
Off[a].....	1.7	77	11	25	18	18	4	1	14	33	23	23	5	2
In[b].....	1.5	77	13	34	16	10	3	1	17	44	21	13	4	1
Out[c].....	2.4	54	..	14	14	11	10	5	..	26	26	20	19	9

[a] The *Off* group includes the members of the probation group who have removed their probation.

[b] The *In* group includes those who have successfully completed their first semester of probation.

[c] The *Out* group includes those who were excluded at the end of the semester.

freshmen surpassing the probation students in the following items: percentage having older brothers and sisters, percentage having older brothers and sisters who have done some college work (although in percentage of group having older brothers and sisters whose older brothers and sisters have done some college work the groups were exactly equal), percentage of group who have at least one parent who has done some college work, percentage of individuals living at home, and percentage who are church members. On the other hand, the probation group surpasses the freshmen of the class of 1926 in the following items: percentage of group whose parents have done no more than grade school work, percentage of group doing outside work, and percentage of group coming from small towns of less than 3000 inhabitants.

Effect of Student Self-support on Scholarship.—Considerable study has been given to the matter of student self-support.[8] One of the studies made by the Office was a comparison of the extent of self-support of the men of the class of 1927 on probation and those not on probation. (See Table XVI, p. 165.) The figures

[8] See also pages 157, 159, and 174 ff.

from this study show the tendency that most of our studies of this factor show: namely, that it is not the fact that a student works that is a handicap, but rather the fact that he spends too much time in outside work. This study shows that practically three times as many men entirely self-supporting were not on probation as were on probation, while six times as many men not self-supporting were not on probation as were on probation. Approximately 18 hours of remunerative employment per week seems to the Office to be as much as a student should be permitted to undertake while carrying the usual college schedule of 15 credit hours.

Studies of Motivation.—A recurring effort has been made to discover how students are motivated. It was early realized that

TABLE XV

COMPARISON BETWEEN FRESHMEN OF THE CLASS OF 1926 (PROBATION STUDENTS OMITTED) AND PROBATION STUDENTS OF ALL CLASSES

	Freshmen	*Probationers*
Total number in group	204	160
Percentage having older brothers and sisters	50	46.8
Number of individuals having older brothers or sisters who have done some college work	68	50
Percentage of total group	33.3	31.2
Percentage of group having older brothers and sisters whose older brothers and sisters have done some college work	66.6	66.6
Number of individuals who have at least one parent who has done some college work	79	59
Percentage of group	38	36.8
Number of individuals neither of whose parents has done more than grade school work	40	56
Percentage of group	19.1	35
Number of individuals living at home	84	61
Percentage of group	41.1	38.1
Number of individuals who are church members	159	91
Percentage	77.9	56.8
Average number of hours of study for each student	24.2	22.1
Average number of hours of work for each individual of group	9.2	10.2
Percentage of group	50	53.7
Average number of hours of work for each individual doing outside work	18.5	19.2
Number of individuals coming from small towns less than 3000	44	38
Percentage of group	21	23.7

TABLE XVI

EXTENT OF SELF-SUPPORT OF THE CLASS OF 1927

Group	Totals		Entirely Self-Supporting		Self-Supporting In Part		Not At All Self-Supporting	
	No.	%	No.	%	No.	%	No.	%
Men of 1927	281	100	35	12.4	123	43.8	123	43.8
Men of 1927 not on probation	237	84.3	26	10.9	106	44.7	105	44.3
Men of 1927 on probation	44	15.7	9	20.4	17	38.6	18	40.9

EXTENT OF SELF-SUPPORT OF THE FRESHMAN MEN (CLASS OF 1927) WHO WERE ON PROBATION SECOND SEMESTER, 1923–24

Group	Totals		Entirely Self-Supporting		Self-Supporting In Part		Not At All Self-Supporting	
	No.	%	No.	%	No.	%	No.	%
Probation 1927	44	100	9	20.5	17	38.6	18	40.9
Probation Out[a]	22	50	4	18.1	8	36.3	10	45.4
Probation In[b]	12	27.3	4	33.3	4	33.3	4	33.3
Probation Off[c]	10	22.7	1	10.0	5	50.0	4	40.0

[a] The Probation Out group includes those probation students who were excluded at the end of the semester.

[b] The Probation In group includes those who have successfully completed their first semester of probation.

[c] The Probation Off group includes those who have removed their probation.

while the student who made a high score on a scholastic aptitude test had a better chance of doing superior college work than the student who made a low score, yet not all students who made high scores on the tests attained high grades in college work. Why this was so has seemed worthy of study.

The "Twenty-first" Club.—From the beginning, those students whose test scores were high have been frankly told that they had

the ability to do good college work and that anything less than very good work would be recognized as failure on their part to live up to their possibilities. In 1923-24 the experiment was tried of organizing the 21 students who stood highest on the mental alertness test into a club. These 21 students were given a dinner by the President of the University and were impressed with the responsibility that was theirs, since to them much had been given in the way of mental alertness. They were given a considerable amount of publicity by the Chicago newspapers. It was hoped that they could be impressed, and that they would do superior work in the University. Table XVII tells the tale of what happened to the members of this Club in the scholarship lists of the first semester:

TABLE XVII

DATA CONCERNING THE TWENTY-FIRST CLUB OF SEPTEMBER 1923

Name	*Test Score*	*Rank Of Test*	*Pt. Avg. For 1st Semester*	*Rank In Scholarship*
T. F.	86	1	2.6666	37.5
J. S.	83	2	.6666	372.5
A. K.	82	3	1.8750	93.5
R. C.	79	4	2.3571	31
C. S.	77	5	1.1666	258
G. B.	76	6	.9333	579
M. J.	75	7.5	.1176	475
W. S.	75	7.5	3.0000	2
T. F.	74	11.5	.8571	335.5
R. H.	74	11.5	1.4117	192
J. S.	74	11.5	2.5333	15
R. W.	74	11.5	2.1250	56
E. D.	74	11.5	2.9333	5
E. N.	74	11.5	1.6666	136.5
E. D.	73	16	2.1250	56
G. B.	73	16	2.0625	67
D. W.	73	16	.8235	341
M. B.	71	19.5	1.0666	278.5
E. D.	71	19.5	2.3333	32.5
K. H.	71	19.5	.6000	386.5
E. W.	71	19.5	1.4000	96.5
Average Scholastic Rank				183

The median point-average of this group is 1.6666 (nine of the twenty-one made better than 2.0000), while that of the entire class

is 1.0000. The median test score for this group is 74; that for the entire class is 53. Mean of point averages, 1.7835.

The boy who stood sixth in mental alertness score finished the semester with a minus scholarship average. He consequently was placed on probation for low scholarship and, in spite of efforts to save him, eventually had to be dismissed.

In contrast with this group, a list was prepared at the end of the first semester of 1923-24 of the 21 students who stood highest in the scholarship lists. Table XVIII presents data showing the standing of these students in mental alertness:

TABLE XVIII

DATA CONCERNING THE 21 FRESHMAN STUDENTS MAKING THE HIGHEST SCHOLASTIC AVERAGES

FIRST SEMESTER 1923–24

Name	*Test Scores*	*Rank Of Test*	*Pt. Avg. For 1st Semester*	*Rank In Scholarship*
J. D.	56	223	3.0000	2
W. S.	75	7.5	3.0000	2
A. S.	61	121	3.0000	2
M. S.	68	44	2.9411	4
E. D.	74	11.5	2.9333	5
N. B.	60	138	2.7647	6.5
R. H.	66	61	2.7647	6.5
L. H.	69	37	2.7333	8.5
M. S.	44	462	2.7333	8.5
A. C.	66	61	2.7142	10.5
H. S.	..	..	2.7142	10.5
L. V.	53	287	2.6875	12
E. T.	67	51	2.5825	13
M. W.	54	266	2.5333	15
J. S.	74	11.5	2.5333	15
M. K.	60	138	2.5333	15
F. O.	70	25	2.5294	17.5
L. S.	62	102	2.5294	17.5
E. D.	60	138	2.5000	20
R. S.	70	25	2.5000	20
R. V.	58	180	2.5000	20
Average Rank on Test		119.5		

The median M. A. test score of this group is 66, while that of the entire group is 53.

The conclusions to be drawn from this experiment are: first, that

in a highly selected group, mental alertness tests do not differentiate finely; second, that the grading system in colleges is not a perfect measuring device; third, mental alertness is not the only factor for success or failure in college work; and, fourth, the methods of motivation may have been faulty.

A Special Study of Eighteen Students.—Another study, which eventually came to be one of motivation with no positive results, was undertaken in an exploratory spirit by a member of the Psychology Department and a member of the staff of the Personnel Department. It was called "A Special Study of Eighteen Students." It was hoped that by selecting individuals in such a way as to exclude the influence of mental alertness and by studying these students as individuals, more knowledge might be gained of the characteristics of probation, average, and superior students.

Accordingly, a total of nine men and nine women was selected. Three women and three men were from the highest ranks in scholarship standing. Of these superior students, one man and one woman were also superior in results on tests of scholastic aptitude that were given them; one man and one woman were merely average in results on tests of scholastic aptitude, and one man and one woman were quite low in scholastic aptitude tests.

Another three men and three women of the total eighteen were selected from those whose college scholarship record was merely average. Of these six, one man and one woman had made excellent scores on scholastic aptitude tests; one man and one woman had made average scores on scholastic aptitude tests, and one man and one woman had made low scores on scholastic aptitude tests.

The last three men and three women were very low in college scholarship. Of these, also, one man and one woman had made excellent test scores; one man and one woman had made average test scores, and one man and one woman had made very low test scores.

These nine couples whose coöperation was gained and whom

we came to designate as high-high, high-average, high-low; average-high, average-average, average-low; low-high, low-average, and low-low, were then submitted to a careful scrutiny to see wherein, other than in the items of scholarship and mental alertness which we had attempted by selection to cancel out, they differed. The method used came eventually to be the case study. Each student spent several hours with the psychology professor and the personnel worker having his family background gone into, his childhood history explored, all of his experiences and characteristics examined by whatever objective tools offered any assistance, as well as by subjective methods.

The final conclusions of the study were simply that, in the cases of those who were achieving scholastic success in college, somewhere in their past experience habits had been started—in a different way in each case—which had acted ever since to insure their scholastic success and were still operating to drive them toward the top of their classes. In one case it seems to have been the kindly and earnest persistence of the mother who drove her daughter to school a distance of four miles and called for her after school every day for years, that had ingrained in the daughter a realization that study was important and knowledge worth the striving. In the case of two other students, superior college work seemed clearly the result of attitudes that had been subtly ingrained through the pressure of family tradition and the standards which their families set for them.

On the other hand, those students capable, according to their test scores, of doing good work, who were doing very poor college work, seemed somehow to have missed the motivating influence that had operated in more or less distinct ways on every one of the superior students. Attempts to study motivation, which is being recognized more and more as highly important, will be continued by the Personnel Office.

Clark's Work with Student Graphic Ratings.—In research hav-

ing to do with individual differences, there are capacities and abilities which are not measured by intelligence tests. These factors are spoken of variously as "instinctive, emotional, and volitional traits,"[9] "matters of temperament and character,"[10] "the emotions, the character, the will,"[11] etc.

One method directed toward the measurement of these traits is the use of the graphic rating scale. The Scott Company, of which Walter Dill Scott was the president, developed in 1920 this new method of securing ratings.[12]

In 1922, shortly after the opening of the Personnel Office at Northwestern, Hopkins, who had had an active part in developing the graphic rating scales of the Scott Company, and Clark constructed a graphic rating scale for use in attempting to measure five qualities wherein students differ from one another. This scale was then used experimentally for two years by the Office in obtaining faculty and student ratings on all freshman and sophomore men. After two years of experimentation, Clark made a statistical study with the following results:

Since there is a tendency for raters using the graphic rating scale to check very frequently one adjective or phrase, but since this was not done in every case, it seems likely that a rating scale could be developed on which ratings would not show this as a marked tendency.

All types of raters used the upper half of the line more than the lower points to the need of further standardization of the scale.

The types of distribution of student ratings depends somewhat upon the method of rating used. When students select those whom they will rate and are given instructions in rating, the ratings made fall

[9] Terman, L. M., "Intelligence and Its Measurement: A Symposium," *Journal of Educational Psychology,* Vol. XII, No. 3, 1921, p. 133.

[10] Pressy, S. L., "Intelligence and Its Measurements: A Symposium," *ibid.,* p. 147.

[11] Pintner, Rudolf, "Intelligence and Its Measurements: A Symposium," *ibid.,* p. 142.

[12] Paterson, D. G., "The Graphic Rating Scale," *Journal of Personnel Research,* Vol. VIII and IX, pp. 361-376.

more nearly under the normal curves and are distributed more nearly over the middle of the rating lines.

During the freshman year, before college selection has had much of an opportunity to operate, both the fraternity and non-fraternity raters agree in the relative standings given to fraternity and non-fraternity men in the several qualities.

When the group being rated remains constant, the non-fraternity men assign the highest ratings, the fraternity brothers next highest, and other fraternity men the lowest ratings (on the average).

Student ratings made by a group of students who selected those whom they felt they knew well enough to rate, and who were given some uniform rules to follow in their ratings, proved more reliable as to results than student ratings made by untrained raters chosen by the persons to be rated.

Faculty ratings are to be preferred to student ratings when the latter are the ratings of students chosen by those to be rated; but there does not seem to be much preference between faculty ratings and student ratings when the student ratings are made by a group of students who select those whom they know well enough to rate and when the raters are also trained in making ratings.

The general results of the study indicate that the number of ratings on an individual should be large, that the ratings should be adjusted, that the faculty members who rate as many as 16 students make better ratings as to a student's alertness of mind (as checked by objective mental alertness tests), and probably on other qualities also, and that there is little to be gained by using the total of all ratings made on an individual.

Our study indicates much can be done in developing the scale and procedure in getting ratings by the graphic rating method. The method should be used of having student raters select those whom they will rate, and these raters should be given uniform rules to follow.

Definite suggestions for changes in the procedure of securing and analyzing ratings which have come from this study are that the number of ratings should be increased (this could easily be done with student ratings), that each should rate at least 16 persons (this also

could be easily done with student raters), and that a method of adjusting ratings should be developed and used.[13]

As a result of this study, the practice of securing the ratings of applicants for admission was discontinued, since the students applying for admission chose those whom they would have rate them, since these raters could be given no training in making ratings, and since practically none of the raters could be expected to rate as many as 16 persons.

Studies of Time Distribution.—Studies of time distribution made among various classes and groups have been helpful in giving norms that can be used in a number of ways in further research and in counseling. One study of time distribution was that made among the probation, average and superior groups, which has already been reported briefly on pages 157-159, and a further discussion of which can be found in Holbrook's articles.[14]

Another study of time distribution was made among the freshmen of the class of 1927 (see Table XIX). The data pertaining to this class cannot fairly be compared with those pertaining to the three special groups, for the students selected for study as probation, average and superior students were practically all above freshman rank. The outstanding fact shown, however, is the redistribution of time that takes place as a freshman passes on from his first year in college. Whether because more extra-curricular activities are open to them after their freshman year, or because more of them become interested in extra-curricular activities as they advance in college, more upper-classmen do participate in extra-curricular activities in general than do freshmen. This fact is the most conspicuous difference in a comparison of the two time distributions. One scarcely dares make finer compari-

[13] Clark, E. L., *Student Graphic Rating Scale.* An unpublished study submitted in partial fulfillment for the degree of Doctor of Philosophy at Northwestern University.

[14] *Op. cit.*

sons because of the fact that the time distribution of the class of 1927 was of men only, while women were included in the special groups that were studied. Also, to some extent, different groups

TABLE XIX

TIME DISTRIBUTION FOR THE MEN OF THE CLASS OF 1927 DURING THEIR FRESHMAN YEAR

	Number participating	Per cent participating	Avg. no. hours per week for those participating
Inter-collegiate athletics	37	13.3	11.08
Intra-mural athletics	34	12.2	8.2
Exercise	148	53.4	4.2
Publications	20	7.2	4.6
Dramatics, debate and music	19	6.8	5.2
Other campus activities	27	9.7	2.7
Campus social activities	260	93.8	4.2
Outside social activities	267	96.3	6.3
Fraternity duties	116	41.8	4.6
Outside work	143	51.6	19.4
Sleep	277	100	54.9
Meals	277	100	10.8
Transportation	276	99.6	10.3
Leisure and miscellaneous	277	100	19.7
Class and laboratory	277	100	17.8
Study	277	100	26.1

Notes to Table XIX

EXPLANATION OF TIME DISTRIBUTION

Athletics and *Exercise* do not include time spent in physical training classes or in military classes, for this is included under *Class and Laboratory*.

Social includes time spent going to picture shows, theaters, athletic games, dances, parties, lectures (other than class room), church services, and dates.

Sleep includes time spent dressing and undressing and in washing and shaving.

Outside Work includes work for which the student receives pay or board.

Leisure and Miscellaneous includes time spent reading newspapers, magazines, or books if not assigned for classes; writing letters; playing musical instruments, if not a part of the college course or if not done for money.

Meals include all time spent at the table.

Class and Laboratory includes physical training classes and field trips for such courses as geology and botany.

Fraternity Duties includes time spent at meetings and "cozies," as well as that spent on work for fraternity.

of interviewers collected the data for the two studies. While a special effort was made to keep each study consistent within itself, there is no guarantee that exactly the same methods were used by the two groups of interviewers who made the two studies.[15]

Statistics Concerning Student Self-support.[16]—Table XX contains information secured through the regular personal interviews conducted by the Office. It shows that among 270 freshmen interviewed, 69, or 25 per cent, stated that they earned their tuition in full; 17, or 6 per cent, stated that they earned it in part, etc.

Still another study of self-support was made which shows 54 per cent of men students working, 39 per cent earning part of their expenses, and 15 per cent earning all of their expenses. The average number of hours spent by those who were working for part of their expenses was 14½ hours a week. The average number of hours spent by those working for all of their expenses was 23 hours a week.

Cases of Students Who Are Partially or Entirely Self-supporting.—It is important to obtain information as to amount of self-support and to be enabled, thus, to set up norms as to the amount of outside work for compensation it is safe for a student to attempt; but it has been found important also to know how the outside work fits into a student's total program: that is, just what sort of work it is, how exhausting, how interesting, how educative, and how the hours can be arranged with regard to hours of study and sleep. These facts have to be obtained from the interviews and must be handled as case studies. It is also interesting to discover through case studies what sort of students are working, why they have to work or desire to work for compensation, and what their objectives in life are. Below are outlines of cases which give samplings from the total number of men and women students at Northwestern who are either partially or entirely self-supporting.

[15] See study of objectivity of the interview, pages 178 and 179.
[16] See also pages 157, 159, and 163.

TABLE XX

PROPORTION OF EXPENSES EARNED DURING THE YEAR 1923–24 BY THE MEN OF THE CLASSES INDICATED

	Liberal Arts				Commerce			
	1927 Freshmen		1926 Sophomores		1925 Juniors		1924 Seniors	
	No.	%	No.	%	No.	%	No.	%
Tuition								
In full	69	25	13	16	25	23	36	39
In part	17	6	15	19	7	6	11	12
Not at all	184	68	53	65	78	71	46	49
Books								
In full	87	32	13	16	36	33	38	41
In part	9	3	16	20	4	4	10	11
Not at all	174	64	52	64	70	64	45	48
Board								
In full	71	26	19	21	41	37	37	40
In part	10	4	15	19	3	3	10	11
Not at all	189	70	47	58	66	60	46	49
Room								
In full	64	24	12	15	25	23	33	35
In part	6	2	16	20	1	1	10	11
Not at all	200	74	53	65	84	76	50	54
Clothing								
In full	68	25	16	20	27	24	37	40
In part	22	8	17	21	5	5	10	11
Not at all	180	67	48	59	78	71	46	49
Incidentals								
In full	87	32	25	31	36	33	41	44
In part	18	7	16	20	9	8	10	11
Not at all	165	61	40	49	65	59	42	45

DIGEST OF RECORDS OF SOME MEN AND WOMEN STUDENTS WHO ARE PARTIALLY OR ENTIRELY SELF-SUPPORTING

Mr. U. was educated in Czechoslovakia, and his parents still live there. He was out of school 7 years before he entered college.

Three years of that time was spent with the U. S. Marines, which he joined when he was out of a job. He had quite a bit of time to study while in the service. He is waiting on tables and doing dishes to help himself financially. He has made very fine grades. He hopes to become a teacher.

Mr. T. was placed in an orphanage when a small child, after his parents had separated. He grew up there. Later he was adopted. Now he is entirely independent. He had one job that took about 50 hours a week, but as it was too heavy a schedule he gave up this job. Now he is teaching boxing, directing a play, and doing boys' work. His grades have not been very high but would undoubtedly be higher if it were not for financial difficulties.

Mr. A. had to break his fraternity pledge because he had to work evenings which kept him from going to meeting, and his fraternity insisted that he attend meeting. This disturbed him for some time but he feels all right about it now. He is entirely self-supporting. He hopes to go to law school. He makes good grades.

Mr. C. received the highest M. A. score in his class the fall he entered school. He is working his way through school and helping to support his family too. He worked every evening with a telegraph company from 5 to 12 last year. This year he is an assistant in the Botany Department. He does telegraphic work at the games and one evening a week.

Mr. O. works six hours a day as cashier at a hotel. He is entirely self-supporting. His grades are good. He wants to complete his law course.

Mr. G. finds that his money is running low and has taken a job that keeps him on duty from 5 in the afternoon all through the night. He has some time to study and sleep in the daytime, but not much; and conditions are such that it is hard for him to study while on duty. His grades have been satisfactory, but at present he feels that his work is too heavy and that he is not doing so well.

Mr. H., the son of Russian parents, is a pre-medical student. He spends 45 hours a week driving a cab. He is making very good grades.

Mr. S. is the son of Italians. He is working from 11 P.M. to 7 A.M. every day at a hotel. He has time to study but not to sleep. His afternoon sleep is interrupted by some tutoring he does. He sells old clothing and helps his family financially. There are about eight children in the family. He is one of the oldest. His father has not been able to work for the last fifteen years. He is studying Italian so he will be able to write his family. He was out for football last fall. He has made satisfactory grades. His physical condition must be watched.

Mr. B. teaches piano 20 hours a week. His grades are fair, but he seems to be working too hard and is very nervous.

Mr. F. made straight A for his first year in college. He is very much interested in chemistry. He is working 24 hours a week waiting on table and tending a furnace. He is interested in foreign students and intends to take a diplomatic course.

Mr. C. works 37 hours a week as a shoe salesman in a local store. He is entirely independent. He conducts a choir at one of the churches. He has made very good grades. He worked as a shoe salesman while going to high school. He gives, as the things that have given him most personal satisfaction, the paying of the doctor's bill for a brother who was ill for over a year, and the buying of a piano for his family while he was in high school.

Miss P. left home when she was fifteen years old and has been independent ever since. For a while she was secretary to Mr. S. of the Blank Co.; later she was a stenographer at the home for delinquent boys at St. Charles, Ill. Now she is working 25 hours a week for her board and room, 6 hours a week for her scholarship, and 6 hours a week for one of the professors, and doing odd jobs besides, averaging on the whole about 40 hours a week. She is carrying 12 hours of school work. Last year her scholarship was good. She says she is getting along all right this year except

when she sympathizes with herself, and she doesn't do that very often. She worked all last summer, doing stenographic work during the day and earning her board and room by doing housework during the evening. She gets very tired and is very nervous.

Miss L. is busy carrying 20 hours of organ-playing for a church in the city and 18 hours of school work. She has a long trip from the city each day, as she finds it most convenient to live near the church where she is organist. Her grades are very good.

Both of Miss B.'s parents were born in Italy. She has made very fine grades and is working in the laboratory of a physician in Evanston, to the extent of about 14 hours a week.

Miss W. has made straight A for all the time she has been in school. She earns part of her expenses clerking and part tutoring. She is interested in her studies to the exclusion of all else. She is the daughter of foreign-born parents.

Miss M. does full time work with the Telephone Company and then turns over all her money to her mother, in return for which she is sent to school and is most grateful to her parents. Her father is a strong union man. She comes up here from the south side of Chicago every day. She is handicapped by poor eyes.

Mrs. R. is entirely self-supporting, goes to school and takes care of her eight-year-old daughter for recreation. She was a teacher at one time and another time she was a preacher. She is not strong and has to be very careful of her health.

These cases show some of the combinations found among students who are supporting themselves. While some general standards can be derived from the statistical studies of self-support, in the application of these standards each case must, in the last analysis, be considered individually, and every factor, such as physical health, scholastic ability, difficulty of work, etc., taken into account.

A Study of the Objectivity of the Interview.—Two studies that have been made of interviewing have some interest. One was an attempt made in 1925 to determine by some means the degree

of accuracy that was being maintained in the recording of objective data concerning each student. As a measure of this, the time distributions of two interviewers, each of whom had interviewed several hundred men, were studied. There were wide variations in several items of the time distribution, and this in spite of the most painstaking preliminary written agreement as to exactly what was to be included in each item.

One conclusion drawn from this study was that it is imperative that interviewers have even more than the customary frequent and detailed conferences to see that they are maintaining the same procedure.

Another conclusion which was suggested by this study was that it is advisable to let no one interviewer alone interview a select group of students which is to be compared with another group interviewed by another person. One must guard against getting differences in interviewers when comparing two groups. This may be done by having one person interview both groups or, when more than one interviewer is used, by having an equal portion of each group interviewed by each interviewer.

A Study of the Value of Interviewers' Estimates.—The second study was an experiment on the part of two interviewers to estimate during the first semester the probable grades (point-averages) of freshman men for that year. The estimates made were not only generally higher than the grades made, but were also more nearly clustered about the average. The interviewers showed a fear of estimating extremely high and of estimating extremely low, or even fairly low.

In spite of the general tendency to estimate and to bunch the ratings about the average, there was rather high correlation between the estimates and the grades made; for one interviewer the coefficient obtained was +.66, and for the other, +.73.

Chapter Thirteen

PERSONNEL RESEARCH AS AN AID IN COLLEGE ADMINISTRATION

The studies of individual differences made by the Personnel Office have had value for counseling and for the establishment of general policies. The Office has also made a number of investigations which in many cases throw light on the problems of individual differences, but which are of more direct value to the Administration because of the information they afford of prevailing conditions within the University.

Dr. Charles R. Mann, as Chairman of the Commission on Educational Surveys of the Association of American Colleges, reported in 1928:[1]

> The first self-survey that I remember was that organized by Northwestern University, made by a committee of its own faculty for each of its schools. They invited one man from the outside to sit on each of these committees, but it was essentially a self-survey of the university by its own faculty.

Much of the work of the Personnel Department is in the nature of a continual self-survey of the institution.

Pre-professional Requirements for Commerce Students.—One study which, if corroborated by further research, should have consideration by the Liberal Arts faculty, is a study of 116 students who were graduated from the Commerce School in 1926. The Liberal Arts faculty has insisted that no student who does his

[1] Mann, Charles R., "Report of the Commission on Educational Surveys," *Association of American Colleges Bulletin,* March 1928, Volume XIV, Number 2.

two years of pre-commerce work in the Northwestern College of Liberal Arts shall be allowed to neglect the courses in mathematics and foreign languages which are required by the Liberal Arts faculty of every first- and second-year student in the College. The School of Commerce has insisted that it does not see any reason for requiring its applicants for admission to take such courses. Students entering Northwestern School of Commerce from other colleges and universities frequently do not have mathematics or foreign language credits among the sixty which they offer for entrance.

Of course the question is: how far shall professional factors dictate the course of a student while he is registered in the Liberal Arts College? While we are not here interested in answering this question, we may note that Table XXI indicates that students who

TABLE XXI

COMPARATIVE AVERAGES OF CERTAIN GROUPS OF COMMERCE STUDENTS OF THE CLASS OF 1926

Total number in the class..... 116

	Point Averages by Semesters			
	1	2	3	4
A. (1) Fifty-nine students, Northwestern Pre-Commerce.....	1.36	1.27	1.43	1.60
(2) Fifty-seven students from other colleges	1.18	1.14	1.36	1.51
B. Seven students entered without either language or mathematics.....	1.11	1.58	1.35	1.56
C. Ten students entered without mathematics credit.....	1.18	1.42	1.36	1.55
D. Eight students entered without language credit.....	1.23	1.33	1.72	1.51

NOTE: Of the Northwestern Pre-Commerce students, only one entered without the required mathematics, one without the required language, and none without both.

enter the Northwestern School of Commerce without credit in mathematics or foreign languages apparently stand as high in the School of Commerce as those who enter with the mathematics and language credits which the Liberal Arts faculty requires.

Grades of Forty-nine Students in Liberal Arts and Commerce.— Among the other studies that have been made by the Personnel Office in the School of Commerce, perhaps those comparing the records of students while in Liberal Arts with their records after transferring to the School of Commerce are of most interest. All of those students who had been in the Liberal Arts class of 1923 either in 1919 or 1920 were included in this study. Forty-nine in this classification had completed at least two semesters of work in Liberal Arts and two semesters in Commerce. The coefficient of correlation (r) between their grades in the two schools is $+.71$, P. E. $\pm.05$.

Table XXII shows the averages of semester point averages in the School of Commerce and in the College of Liberal Arts, made by the 49 students. It shows the upper and lower averages found

TABLE XXII

GRADES MADE BY 49 STUDENTS IN LIBERAL ARTS AND COMMERCE

	Commerce		Liberal Arts	
		Quartile Range		Quartile Range
Highest average	2.5555		2.7500	
		.7951		1.0437
1st Quartile	1.7604		1.7060	
		.3998		.7063
Median	1.3606		1.0000	
		.3583		.2057
3rd Quartile	1.0023		.7943	
		.6152		.7197
Lowest average	.3871		.0746	
Range	2.1684		2.6754	

in each group, the lower limits of the first quartile, the median, the lower limits of the third quartile and the ranges, besides the ranges of the quartiles. These averages are based on all the work done in Commerce or in Liberal Arts.

Table XXIII shows how the point averages of each student of the 49 are distributed by semesters in each of the schools.

TABLE XXIII

POINT AVERAGES OF THE 49 STUDENTS BY SEMESTERS

Point Averages	Cases in Commerce	Cases in L. A.
2.8000 to 3.000	.....	4
2.6000 " 2.7999	4	1
2.4000 " 2.5999	4	3
2.2000 " 2.3999	14	11
2.0000 " 2.1999	15	11
1.8000 " 1.9999	11	7
1.6000 " 1.7999	22	9
1.4000 " 1.5999	12	16
1.2000 " 1.3999	31	22
1.0000 " 1.1999	23	23
.8000 " .9999	12	16
.6000 " .7999	5	12
.4000 " .5000	6	10
.2000 " .3999	3	11
.0000 " .1999	4	11
-.2000 " -0001	.....	3
-.4000 " -2001	.....	3
-.6000 " -4001	.....	1
-.8000 " -6001	.....	1
-1.0000 " -8001	.....	1
-1.2000 " -1.0001	.....	1

These last two studies show the total range of grades to be narrower in the School of Commerce than in the College of Liberal Arts, and they also show the grades made by these students

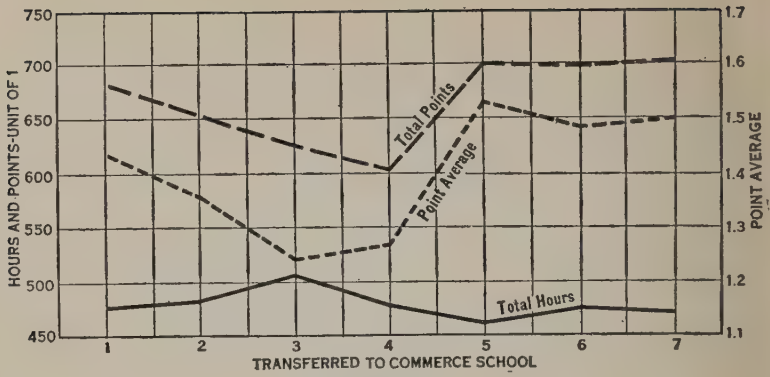


FIGURE 12

TOTAL HOURS, TOTAL POINTS, AND POINT AVERAGE OF THE 30 COMMERCE STUDENTS, CLASS OF 1924, WHO DID THE FOUR SEMESTERS OF PRE-COMMERCE WORK IN N. U. LIBERAL ARTS

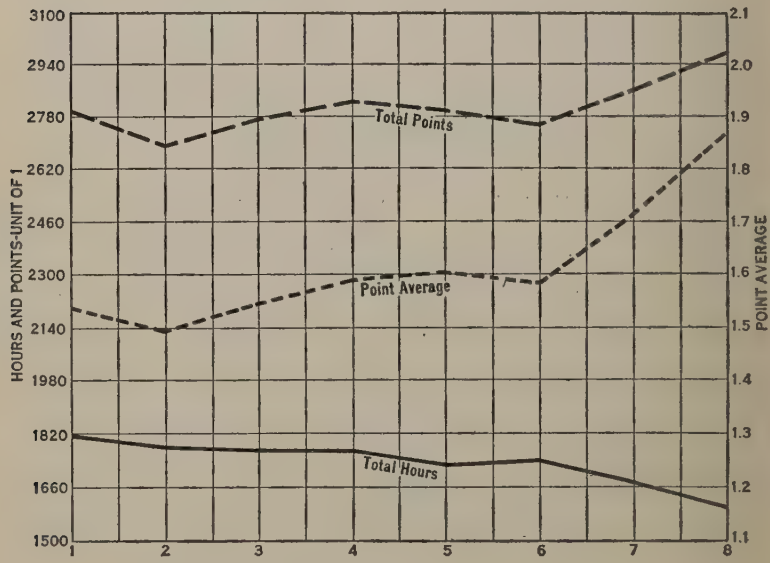


FIGURE 13

CHART SHOWING TOTAL HOURS, TOTAL POINTS, AND POINT AVERAGE OF 113 MEMBERS OF THE L. A. CLASS OF 1923 WHO WERE IN N. U. L. A. FOR EIGHT CONSECUTIVE SEMESTERS

after they enter the School of Commerce to be, on the whole, higher than they were in the College of Liberal Arts.

Figure 12 illustrates the fact that the grades of the students in their last two years in the School of Commerce were higher than they were in their first two years of pre-professional work in the College of Liberal Arts.

It is dangerous to attempt to draw general conclusions from such a study because it is based on such a small number of cases. Furthermore, it is well recognized that academic grades are an unreliable basis for making careful comparisons. To illustrate that it is not the fact that the academic work in the School of Commerce is easier than that in the College of Liberal Arts, and it is not the fact that the School of Commerce draws off the cream of the class that sends up the grades of those transferring to the school of Commerce, Figure 13 is presented, showing the total hours, total quality points, and point averages of 113 members of the Liberal Arts class of 1923 who were in Liberal Arts for eight consecutive semesters. This figure shows the same rise in the total points and point averages for those who remain in Liberal Arts as for those who transfer to the School of Commerce.

It is probably safe to make two assumptions regarding the reason why these curves rise in both instances. First, we have seen in the studies reported in Chapter IV that there is a gradual elimination of students, particularly in the first two years, who are not qualified to carry on college work satisfactorily. This factor would operate to improve the average quality of all those who are left in the last two years. Second, in the last two years in both the College of Liberal Arts and the School of Commerce, students carry almost entirely elective work: professional work in the School of Commerce and "major" work in the College of Liberal Arts. There is some objective indication in another study made by the Office to show either that students do better in those subjects which they choose because of interest, or that students tend to choose as majors those studies in which they have ability

and do well. In this study, again, the reliability of the figures can be questioned because of imperfections in grading, and also because students are required to maintain a standing of C in their major subject. Even taking these facts into consideration, however, it seems safe to say that the data presented in Table XXIV show a tendency for students to do better work in those subjects in which they choose to major. (See Figure 14, page 187.)

Comparison of Men's and Women's Grades.—It was of interest in this study to find that the point averages of men students were higher than those of women, both in their major subjects and also in their other work. Some explanation of this may be found in the fact that the men students who stay in the College of Liberal Arts and are graduated from it are a very highly selected group. The tendency seems greater for men than for women students to leave the College of Liberal Arts either to enter no other college or to enter one of the professional schools. The hypothesis that the men who stay and are graduated from the College of Liberal Arts are a more highly selected group than the women is further strengthened by the fact that the average intelligence score on the Thurstone test of all the senior men of the class of 1923 was 97, whereas the average of all the senior women was 89.

Studies of "Majors."—In connection with the study of point averages made in all work and point averages made in major subjects, the Office studied the distribution of the interest of students in subjects by the distribution of their election of majors over an eleven-year period. Tables XXV and XXVI show the distribution by departments over nine years. Tables XXVII and XXVIII give the distribution for the tenth and eleventh years and show a strong weighting in the election by women of subjects which they intend to teach upon graduation. It would perhaps prove illuminating to investigate further the motives operative in the election of majors.

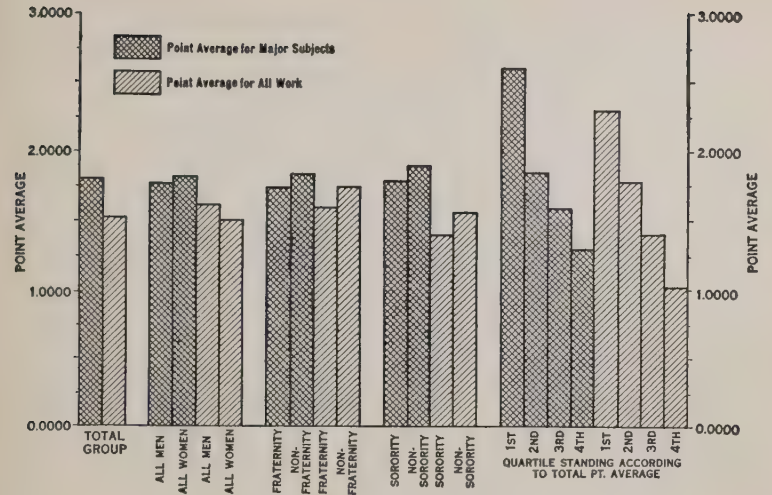


FIGURE 14

COMPARISONS OF THE POINT AVERAGES MADE IN MAJOR SUBJECTS WITH ALL WORK DONE BY VARIOUS GROUPS OF THE 162 STUDENTS WHO ENTERED AND GRADUATED WITH THE CLASS OF 1923

TABLE XXIV

STUDY OF MAJORS FOR THE CLASS OF 1923

	No.	%	Total Pt. Av. for 4 Yrs.	Major Pt. Average
Total number	162	100	1.52	1.80
Number of men	44	27	1.62	1.77
Number of women	188	73	1.495	1.82
Frat. men	22	13.5	1.585	1.74
Frat. women	74	46	1.48	1.79
Non-frat. men	22	13.5	1.745	1.83
Non-frat. women	44	27	1.54	1.90
First quarter [a]	40	55	2.325	2.63
Second quarter	42	26	1.775	1.85
Third quarter	42	26	1.395	1.59
Fourth quarter	38	23	1.03	1.31

[a] The class is divided into quarters according to total point averages.

TABLE XXV

MAJORS OF CANDIDATES FOR DEGREES

	1914–15	1915–16	1916–17	1917–18	1918–19
Biblical Literature	1	2	..	..	..
Botany	10	8	8	5	8
Chemistry	5	16	19	15	6
Economics	22	22	15	18	19
Education	3	5	5	2	6
English	47	48	66	55	40
Geology	2	..	4	1	..
German	16	21	24	17	8
Greek	1	2	2	2	..
History	40	55	50	24	43
Latin	12	6	12	5	12
Mathematics	11	16	16	12	13
Philosophy	4	4	2	2	3
Physics	8	3	8	7	1
Political Science	..	..	3	2	1
Psychology	7	9	11	14	22
Romance Languages	..	13	18	13	22
Zoölogy	11	14	7	6	3

TABLE XXVI

MAJORS OF CANDIDATES FOR DEGREES

	1919–20	1920–21	1921–22	1922–23
Biblical Literature	..	2	1	2
Botany	8	7	13	7
Chemistry	11	5	12	11
Economics	44	24	50	42
Education	7	1	9	12
English	47	51	61	60
Geology	4	5	3	5
German	8	5	6	2
Greek	..	..	..	..
History	46	37	40	34
Latin	8	10	9	3
Mathematics	11	6	7	8
Philosophy	3	5	3	4
Physics	5	10	4	9
Physical Education	1	..	..	..
Political Science	6	7	4	12
Psychology	24	35	31	28
Religious Education	..	3	3	2
Romance Languages	34	30	37	30
Zoölogy	12	13	8	13

TABLE XXVII

MAJORS OF CANDIDATES FOR DEGREES IN 1924

Subject	*Men*	*Women*	*Total*
Botany	..	7	7
Chemistry	5	3	8
Economics	15	16	31
Education	1	16	17
English	15	57	72
Geology	4	4	8
German	3	4	7
History	8	20	28
Latin	..	6	6
Mathematics	3	6	9
Philosophy	1	1	2
Physics	15	..	15
Political Science	8	..	8
Psychology	7	20	27
Religious Education	..	5	5
Romance Languages	1	49	50
Zoölogy	5	4	9
Number having two Majors	5	26	31

TABLE XXVIII

DISTRIBUTION OF MAJORS OF 1925 GRADUATES

Subject	*Men*	*Women*	*Total*
Art	1	2	3
Biblical Literature	1	1	2
Botany	..	7	7
Chemistry	7	2	9
Greek	1	..	1
Latin	..	8	8
Economics	17	8	25
Sociology	2	5	7
Education	4	13	17
English	8	63	71
Geology	6	4	10
German	3	2	5
History	8	20	28
Mathematics	4	13	17
Philosophy	3	2	5
Physics	11	..	11
Political Science	6	2	8
Psychology	2	21	23
Religious Education	2	8	10
French	..	35	35
Spanish	..	1	1
Zoölogy	1	8	9
Number having two Majors	6	19	25

Comparison of School of Speech Students with Students in Liberal Arts.—Among researches that the Office has made for the School of Speech is a comparison between all beginning students who entered the School of Speech in September, 1923, and Liberal Arts freshmen of 1922-23 and Liberal Arts senior women of 1922-23. It also permits some comparison between the students who are registered for the two-year course in the School of Speech and those who are registered for the four-year course. Most of the points which would be of interest to administrators in the School

TABLE XXIX

SCHOOL OF SPEECH

Data concerning all beginning students entering the School of Speech in September, 1923. Comparison of these speech students with Liberal Arts freshman men of 1922-23 and Liberal Arts senior women of 1922–23.

	Speech		*Freshmen* [a]	
	No.	%	No.	%
Hours of study per week	28.11		24.24	
Hours of outside work per individual working	19.00		9.24	
Percentage of group doing outside work		18.91		50.00
Brothers or sisters having college experience	20	31.00		33.00
Those who have at least one parent with college experience	28	43.70		8.00
Those whose parents have done no more than grade school	10	15.60		19.10
Those who have one parent at least doing high school work but no more	26	40.70		
Those who are living at home	11	17.20		41.20

[a] Freshman men not on probation.

	Speech		*Senior Women*	
	No.	%	No.	%
Those whose home is in Chicago	13	20.00	38	29.00
Those whose home is on the North Shore	7	10.00	28	21.00
Those whose home is elsewhere	44	70.00	66	50.00
Those who are living at home	11	17.00	67	51.50
Those who are living at a dormitory	53	83.00	65	48.50

	Two-year		*Four-year*	
	No.	%	No.	%
Those who are living on the North Shore	1	3.00	6	18.00
Those who are living in Chicago	8	23.00	5	14.00
Those who are living elsewhere	26	74.00	18	68.00
Those who are living in dormitories	31	89.00	22	76.00
Those who are living at home	4	11.00	7	24.00

TABLE XXX

ADDITIONAL DATA OF THE SCHOOL OF SPEECH

Students considered are all those entering the School of Speech as beginning students in September, 1923.

	POINT AVERAGE	
	Range	*Median*
Entire group	2.4736 to −2.0000	1.1052
Living in dormitories	2.4736 to −2.0000	1.0333
Living at home	1.8125 to .0666	1.0000
Doing outside work	2.3333 to −2.0000	1.0631
Not doing outside work	2.4736 to − .5285	1.1100
Brothers and sisters of college experience	2.1052 to − .5285	1.0982
No brothers and sisters of college experience	2.4736 to − .8666	1.1114
Those from Chicago	1.8125 to − .1176	1.0000
Those from North Shore	1.4706 to .3000	1.0000
Those from elsewhere	2.4736 to −2.0000	1.1961
Those studying 42 to 34½ hours	2.4736 to .3333	1.2631
Those studying 34 to 28½ hours	2.3333 to − .5285	1.1176
Those studying 28 to 24 hours	2.1052 to −2.0000	1.0000
Those studying 22½ to 8½ hours	1.9333 to .1176	1.1909
Two-year students	2.4736 to −2.0000	1.1698
Four-year students	2.3333 to − .8666	.8666
1st quarter high school (10 cases)	2.4736 to 1.1176	1.9309
2nd quarter high school (19 cases)	2.3333 to 2.0000	1.2105
3rd quarter high school (12 cases)	1.5555 to .0666	1.0027
4th quarter high school (2 cases)	1.2666 to 1.0588	1.1627
Unclassified (23 cases)	2.0294 to − .5454	.7917

of Speech, leading them to a better understanding of their student personnel, and most of the points of interest to the University administrators can be seen from Tables XXIX and XXX.

The Speech students reported four hours more study per week on the average than was reported by freshman men in Liberal Arts. While one-half of all Liberal Arts freshmen work outside, less than one-fifth of the Speech students work outside, but those who do spend about twice as many hours per week at it as do Liberal Arts freshmen.

The College of Liberal Arts must provide living accommodations for only 59 per cent of its freshman men, whereas the School of Speech must provide dormitories for 83 per cent.

On the whole, there seems to be a positive relationship between the amount of time Speech students give to study and their point

averages. There is also a positive relationship between standing in high school and point average in the School of Speech.

A Survey of Certain Students Taking Psychology.—During the first semester of the academic year 1926-27, the Personnel Office made a study of the students in the several sections of beginning psychology in the professional schools on the Chicago campus of Northwestern University. This study was made with the object of securing information that might be of value to the instructional staff of the psychology course. The questionnaire used in that study and a summary of the results of the questionnaire, although chiefly of interest to the Psychology Department for which the study was made, were sent by the Office to other departments of the University to illustrate a type of study which it was prepared at any time to undertake for any instructor or any department upon request. A copy of this report is included as Appendix C (p. 238), not so much for the intrinsic interest of the results obtained, but to illustrate the type of information with which the Office will furnish any instructor. The Office furnishes this sort of survey in addition to the service it is always willing to render of consulting with instructors concerning any individual case about which more information may be desired.

Experiments in Sectioning.—Experimentation with sectioning of two different kinds is constantly carried on by the Office. The first type of sectioning might perhaps better be called segregation. During 1926-27, the head of the English department attempted the experiment of providing separate sections for freshman men and women in English literature. He reported the experiment highly successful. At the end of the first semester he asked the instructors in the course to write the Director of Personnel and to express, without reserve, their judgment as to the success of the plan.

The letters received in the Personnel Office showed an overwhelming sentiment on the part of the instructors in favor of segregation. Twenty-eight letters were received: 26 favoring and

two condemning the plan. The table below gives a concise summary of the views expressed.

TABLE XXXI

RESULTS OF SECTIONING IN ENGLISH DEPARTMENT

	1st Reason	*2nd Reason*	*3rd Reason*
When women are present there is a feeling of restraint..	8	9	
Women are a disturbing influence in the classroom.....	9	6	
When women are absent there is more personal contact with the instructor.....	2	2	4
When women are absent the professor is more free in discussion.....	3	1	3
Greater unity in class spirit.....		2	
Closer contact with fellow students.....	1	1	
Grading was more accurate.....	1		

Two instructors did not favor separation, stating that the class was not as responsible as when women were present, that the spirit of rivalry was not present, that financially it would be undesirable in the more advanced courses, and that social contacts would be curtailed. The success with which the English Department feels this experiment met has induced instructors in other departments to give it a trial.

Sectioning according to ability has been tried in several departments. The Personnel Office is urging more experimentation with sectioning. In a statement issued by the Office, a list is given of the professors who are using intelligence scores as a basis for preliminary sectioning. This statement also says:

It has been found that there is a fairly high correlation between classroom performance and the intelligence test scores. While it is not pretended that the test scores prognosticate scholastic performance with anything like complete accuracy (+.56, P.E. .03 is the correlation coefficient [r] actually found), they are nevertheless sufficiently accurate to be serviceable in sectioning. The addition of the high school quarter to the test score gives higher prediction of scholarship than either taken alone. This information is available to faculty members at registration time in the Personnel Office.

It would be of interest to make a thorough survey of the actual advantages that have resulted in those courses in which sectioning has been tried.

A Study by Mrs. Schreurs of the Relation of Certain Factors to Success Achieved in the Study of Freshman English and Mathematics.—A study has been made recently by Mrs. Esther Jones Schreurs, a member of the staff of the Personnel Office, of "The Relation of Certain Factors to Success Achieved in the Study of Freshman English and Mathematics at Northwestern University." This work not only has value in the program of research looking toward a better selective system, but it also points the way to further studies along the same line in other freshman courses. Mrs. Schreurs attempted to find predictive measures for success, as indicated by grades, in the specific fields of English and mathematics. She experimented with mental alertness score, high school quarter, size of the high school, number of units of English and mathematics presented for entrance, and general achievement in college (point average) as her predictive measures. Some of the information obtained from her study is as follows:

1. The distributions of grades in English and mathematics are different, English being skewed at the high end and mathematics at the low end.

2. Women do consistently better than men in their work, even in more advanced mathematics courses.

3. Mental alertness scores have little predictive value in English or algebra and trigonometry, though some relationship is apparent. Grades in college algebra and analytical geometry show a significant relation to mental alertness scores.

4. As the distribution of grades approaches the normal, the relationship between grades and mental alertness score is noticeably greater.

5. There is a distinct tendency in both English and mathematics for first- and second-quarter students to do better than third- and fourth-quarter students. However, even the first-

quarter students do less than C work in the two beginning mathematics courses, and the fourth-quarter students do very nearly C work in English.

6. Students from Evanston High School do better, on the whole, in both English and mathematics than do others; and students from private high schools do consistently poor work as compared with the other groups.

7. The students from the large high schools combined with those from the North Shore high schools do better on the average than do those from small schools.

8. The students who come to Northwestern from the small high schools other than private preparatory schools have comparatively high mental alertness scores.

9. The number of units of English presented from high school has no appreciable effect on grades in English in college.

10. The amount of work done in mathematics in high school has a definite relation to grades in college, but that relation differs for the different mathematics courses.

11. English grades are consistently above the point averages of students, and mathematics grades are consistently below the point averages of students.

12. The relation of grades in mathematics and English to point average is greater as the distribution of grades approaches the normal.

Mrs. Schreurs' study points the way definitely to further work along the following lines:

1. Further study of grades in other freshman courses.

2. The relation of high school quarter, mental alertness score, and point average to grades in other freshman courses.

3. A study of the high school curriculum to discover overlapping or gaps between high school and college work.

4. The cause of failures in mathematics and other subjects with a remedial point of view, to discover how failing students

may be converted into successful students without sacrifice of standards.

5. The development of more objective tests which may be compared from year to year and form a more accurate basis of comparison of one student with another.

6. A comprehensive testing and sectioning program utilizing objective measurements, so that students may receive the instruction best suited to their needs.

Miss Stack's Survey of the Religious Agencies and Activities of the University.—At Dr. Howard's suggestion, a survey has recently been made by Alma Pearle Stack of the religious agencies and activities of Northwestern University. In the preface to her report we find:

In this study the attempt has been made to secure objective information concerning the religious situation upon the Evanston Campus of Northwestern University. An endeavor has been made to discover what is actually being done by the adjacent churches and by the University to meet the religious needs of the students of Northwestern University, and to discover how the students respond to those efforts.

It is intended that this study shall give those interested in the religious situation at Northwestern University a fairly comprehensive view of what is being done for the religious life of the students of this institution. The study is not exhaustive but suggestive. It does not claim to cover the situation in detail. The writer has tried to keep out of the subjective field as much as possible.

The data for the study were collected by means of carefully constructed schedules, or questionnaires. The findings of the author, although showing some indications of a partisan point of view, are interesting. They are quoted here at length:

At the conclusion of this study, in which the attempt has been to secure information as to the exact status of religion on the Evanston Campus of Northwestern University, the series of tabulated figures and totals present to the mind of the writer certain findings that may be concluded as to the present situation:

First, the churches have not spent much time in considering the needs of the college students, and the duties of the church toward them. Six of them are supplied by the University with lists of the students who have preference for their denominations; six of them canvass their students annually, one more often. There are seven churches which attempt to reach students by letter, and four that make personal calls. Two churches use the telephone also as a means of communication with young people of their faith at Northwestern.

But for the most part, these initial calls and letters are not followed up. Seventy-five per cent of the student body of Northwestern belonged to churches in their home towns. Although fifty-two per cent of the students answering the questionnaire say that they attend church every Sunday or frequently, only thirteen per cent attend Evanston churches. The churches as a group plan their programs without thought of the students, although two ministers prepare their sermons with youth in mind. Perhaps they give a reception or a social occasionally, and consider their duty in respect to Northwestern done. Two churches maintain part-time workers who give some little time to student work.

Yet nine of these churches profess interest in developing a plan of mutual coöperation with the University; six of the nine make suggestions for bringing about some such alliance. The most pliant years of a person's life are those which he spends in college; this is the theory of the University in respect to other phases of education. Surely, the churches of Evanston, then, could afford to give—not a little—but a great deal of thought to bringing Northwestern students into their pews—into the spiritual life which they lack so pitifully.

Yet the ministers profess willingness to work with the University. After all, they think, it is the place of the University authorities to invite the churches to build a program with them. In only one case has a college authority offered to help. The viewpoint of the churches, then, is clear: the University should make the first move toward cooperation in religious education.

There are on the campus nine religious organizations, organized among students, most of them for purposes of deepening spiritual life, widening social interest, and developing church interest in the students with whom they work. How far short all of them fall of

achieving their purposes may be seen by a glance at their poor organization, their membership, the sparsity of results they accomplish.

The purpose of the Oxford Fellowship Club, for instance, is to promote the challenge of the Christian ministry; yet they have no acting president or vice-president, and they have accomplished apparently nothing. The Y.M.C.A. spent $11,741.78 in a single year and served only 237 members; the Y.W.C.A., with 450 members, reported an expenditure of but $3900.00. Six of the organizations reported no service to the University. The Y.M.C.A. and Y.W.C.A. secured employment for many students, placed students in rooms, gave out information. It is to be wondered if they have not failed to give out the spiritual help that their purpose names.

According to the reports of these nine campus religious organizations, forty-six per cent of the students belong to them; twenty-seven per cent contributed to some one or other. But the influence they exert is seemingly little. They are unbusinesslike in organization and apathetic in activity. Apparently, they have no excuse for existing at all.

The typical student who attends Northwestern University today is indifferent to religion. The reports on church attendance in Evanston indicate that, as do the numbers of answers declaring that nothing should be done to amend the situation. But by the admission of the students themselves, a very large percentage of them were church members at home and a great number were active in church work. Only a few transfer their memberships to Evanston churches, and scarcely any take part in the work of the church. Nineteen per cent of these who answered the questionnaire asserted that the influence of the university life had changed them to less religious interest and activity, and fifty-eight per cent found no change at all. This makes a total of seventy-seven per cent that are influenced adversely or not at all by University life. It is a question whether the University is not responsible to the parents who trust their children to the college, and to the Christian founders of the institution.

Based on the students' statements in answer to certain questions, and also upon their comments as quoted in the appendix, some of the important reasons for the situation are to be found in the fact that the campus religious organizations are failing; the University

is indifferent toward the religious life of the students; and the churches make no special effort to bring Northwestern students to them. The following quotations seem to summarize the attitude of the student body:

"Found no contacts here in the University which would influence my interest."

"To greater interest but less activity because opportunity does not seem to be present."

The students of Northwestern University register here; they are intellectually honest with the clearness of perception that is so characteristic of youth today. The University authorities have set up an institution of higher learning, professing to prepare young people for life. And the young people come here with open minds ready to receive instruction in life.

They think much about religion, by their own answers to the questionnaire; but they don't take their problems to Y secretaries or members of the faculty or ministers because they sense no feeling of interest there for their religious welfare. The campus attitude was the factor that harmed the greatest number religiously, according to their answers.

To introduce the subject of morals or religion into a conversation in a sorority house parlor, or between dances, or at a game—even to mention it—is to commit a serious breach of social etiquette, one that will even lower the speaker in the estimation of his evening's companions.

For a person to attempt to discuss it with a casual acquaintance is a fatal error, if he has any intention of continuing to be with whomever he speaks to.

The real discussions are held in fraternity house bedrooms long after midnight, with lamps low, and intimate friends, talking honestly. In the chambers of a girls' dormitory three or four friends will talk long and confusedly about religion.

But on the surface the attitude is indifference. The Northwestern University student does not discuss religion with his casual classmates and professors; he doesn't want the world to know that he and his roommate ever talk about it.

The University requires a year of mathematics or Greek of every

Liberal Arts student. Every student must take physical training. Each young man and young woman must register for English. Yet the University apparently does not care whether the student flounders in a mental sea of bewilderment on religious questions. Regardless of the humanitarian viewpoint, can there be "liberal education" without any training in religious judgment?

The student receives a letter, perhaps, from some church at the first of the year. At the University, required courses are dinned into his ears. Fraternity and sorority relations are brought to his attention as factors of great importance in his university life; he is expected to get into activities and attend football games and read the *Daily Northwestern*. But no great importance in religious welfare is brought to his mind; no one mentions it. His schedule is filled with other things; he feels he has no time for church. The University has advised him to take on this schedule; and the University has said nothing about his attending church or giving any time to thought about his religion. In other words, the student's success at Northwestern is measured by his grades in classes; his activity in athletics, and his membership in sororities or fraternities; therefore, the student gives his time to these matters to the neglect of religion.

Surely the sense of value that a student gets as to university life is traceable to the factors presented as important by the University itself. The attitude of Northwestern's student body toward religion is indifference, because the attitude of the University itself is indifference.

Many students, in answering the question on suggestions to improve the religious situation, mentioned the attitude of professors toward religion. Here, again, it is made clear that the pupils of these instructors have unconsciously looked to their professors for guidance, and have found indifference again. What incentive have they to feel deep interest in religion?

The eager young men and women who fill the classrooms of the University are seeking for religion. Fifteen per cent of the questionnaires asked for chapel to remedy the indifference. Some think about religion frequently; some have solved the problem for themselves. But far too great a number keep the subject from their minds as much as possible because they feel their own inadequacy to deal with it without some guidance. The guidance is not forthcoming. And the great

necessity for leadership in that direction is shown by the tables that name the same academic subject as being both helpful and harmful, in a religious way, to different students.

There is a crying need for the great influence of love; of a leadership that will guide searching student minds to dwell on the spiritual life. They are starving, these young people, for the food of religion. They need it desperately and they don't know what they need. The remark of one sophomore woman epitomizes the whole situation on Northwestern's campus: "If I were religious, I might help, but I don't even know how to help myself."

Might not the University be logically expected to know how to help?

Survey of Intellectual Life and Activities of the Campus.—Of other recent studies made by the Office, one seems particularly worthy of mention. This is a general survey of the "Intellectual Life and Activities of the Campus." An attempt was made to secure accurate first-hand information concerning all activities that have a bearing on the intellectual life of students, and some knowledge about the agencies that foster intellectual ideals and honor intellectual achievement. Committees were organized to study the following groups: faculty, fraternity, sorority, non-fraternity and non-sorority, religious groups. A committee of seniors, appointed to make a study of undergraduate education, made a report which contained some practical suggestions for the promotion of greater intellectual life on the campus. Letters from faculty members containing their estimates of intellectual standards and offering suggestions for means of promoting them on the campus were of so stimulating a nature that it was thought desirable to reproduce them in their entirety instead of attempting any tabulation of the many ideas they contained. This enterprise is most valuable, perhaps, in that it points the way to further studies and surveys.

Selection of Faculty Members.—While research regarding selection of students has received a great deal of attention by the Personnel Office, only a bare beginning has been made toward

NORTHWESTERN UNIVERSITY

EVANSTON, ILLINOIS

192

DEAR SIR:

You are being considered for appointment to the faculty of Liberal Arts of this University. Before making final decision we ask you to supply the information indicated on this blank.

A prompt return of this instrument, properly filled out, will facilitate our decision.

R. A. KENT, *Dean.*

In response to the above request I submit the following statements:

I. MY TRAINING HAS BEEN AS FOLLOWS:

Schools Attended	Years of Attendance (as 1910-12)	Special Field of Study	Degree
1. Secondary			
2. College (Undergraduate)			
3. Graduate			
4. The courses which I have taken whose purpose was primarily to prepare me to teach are:			

II. MY TEACHING EXPERIENCE TO DATE HAS BEEN AS FOLLOWS:

Name of School	Position and Rank	Years in Position (as 1925-26)	Name of Your Immediate Superior
1.			
2.			
3.			
4.			
5.			

(If more space is needed, use back of next sheet)

III. The Positions I Have Held, Other Than Teaching, Since Completing My Undergraduate College Work Are:

1.
2.
3.
4.
5.

IV. I Have Written and Published as Follows:

1. Books (by titles)	Dates of Publication
2.	
3.	
4.	
5.	
6.	

1. Articles (by titles)*	Name of Periodical Publishing	
2.		
3.		
4.		
5.		
6.		
7.		

*Check those which are original research

V. Miscellaneous

1. I am (not) married. I have _____ (give number) children.
2. I am a member of _____ religious denomination.
3. My interest is greater in research—teaching. (Draw a line through one.)
4. My attitude toward personal visitation of my classes for the purpose of evaluating and improving my teaching would be (check one): Opposed _____ Passive _____ Sympathetic _____
5. My present salary for the school year is $ _____.
6. My present address is _____

(Signed) _____

Date _____

exercising scientific care in the selection of faculty members. Until recently, selection was based almost entirely on letters exchanged with and concerning the instructor under consideration. Theoretically it is just as undesirable—or even more so—to appoint as an instructor for a year or two a man who will fail as it is to register as a student one who cannot meet the academic standards of the University.

As a beginning toward selecting instructors on a more scientific basis, a member of the Personnel staff, in coöperation with the academic Dean of the College of Liberal Arts, has drawn up a blank which is used as a supplement to the personal letters that are still received with regard to prospective appointees. A sample of the blank now in use in shown on pages 202 and 203.

Attempt to Evaluate Classroom Teaching.—It is difficult for the administration to obtain a measure of an instructor's success as a classroom teacher. In lower schools, systems of supervisors and classroom visits take care of this difficulty to some extent. On the college level, however, it would still be regarded by most instructors as a decided infringement of their rights and privileges to have department heads or administrators enter their classrooms for the purpose of evaluating and criticizing their teaching.

It will be noted that in the preceding blank each man being considered for appointment to the faculty is asked, under the miscellaneous questions, what his attitude would be toward personal visitation of his classes for the purpose of evaluating and improving his teaching. Until instructors are unanimously sympathetic toward this, a committee which has been appointed to study instruction in the first two years of the College of Liberal Arts is attempting, by means of reports from students, to make some evaluation of instruction. A sample of the blank used for this purpose is to be found as Appendix D. The results from this survey will be used not only for the report of this committee on instruction, but will also be studied in an attempt to determine the value of continuing to obtain student reports of this sort.

PART IV

Summary

Chapter Fourteen

CONCLUSION

The foregoing chapters have described in considerable detail a centralized system of personnel work which seems to the writer to be as complete as exists at this time. The description covers in more or less detail the needs that gave rise to such a system; the internal development of the Office; the problems of personnel service, including selection and orientation of students, vocational, educational, and personal counseling, placement, and mental health; the methods that the Office has employed to deal with these problems; and a record of much of the personnel research done by the Office. The description covers a period of six years and includes the records of at least 10,000 students.

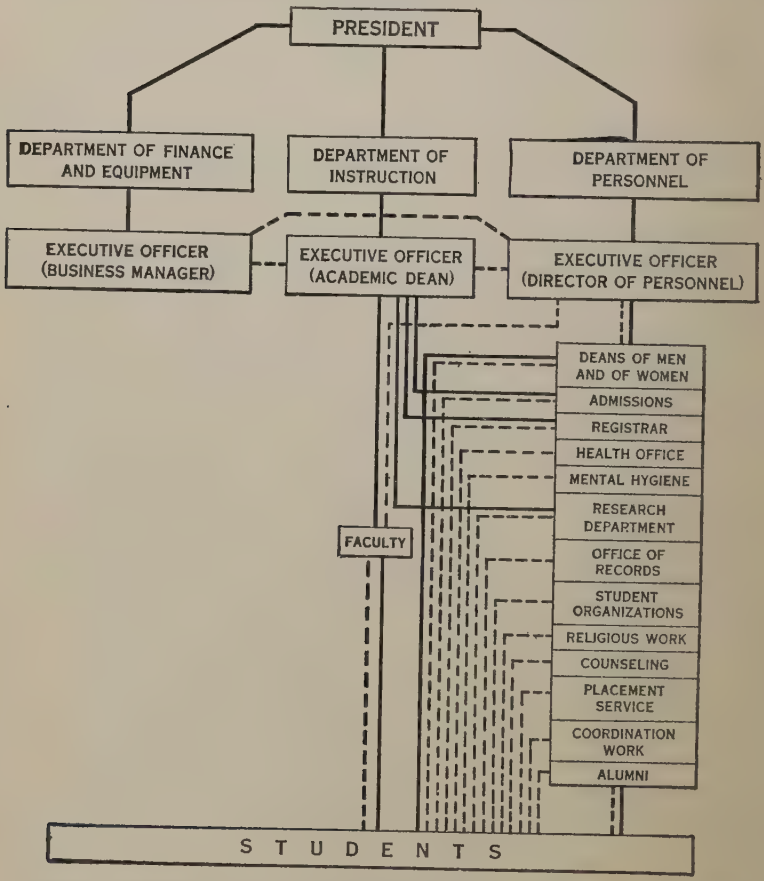
It is hoped that from this account some adequate idea can be obtained of what those responsible for the personnel program at Northwestern consider "personnel work" to be.

By "personnel work" is meant not merely vocational counseling or placement or freshman orientation or tests and measurements or sectioning or research or interviewing. It rather includes all of these. Personnel work is the coördination and concentration of all of the resources of the institution together with the information afforded by scientific investigations for the purpose of furthering the best interests of each individual in all of his aspects.

Two divisions of university administration are traditionally recognized: the division of instruction, which is concerned with faculty appointments, curriculum, etc., and the division of finance, which handles all of the business affairs of the university and

DIAGRAM III

PLAN OF ORGANIZATION OF A COLLEGE OR A UNIVERSITY SHOWING THE PLACE OF THE DEPARTMENT OF PERSONNEL



NOTE: According to this diagram, the Director of Personnel is the coördinating agent for all personnel agencies of service and research within the institution. The broken lines represent lines of access and informal relationships; the unbroken lines indicate a relationship of some authority.

which is concerned with the maintenance of buildings and grounds, etc.

The proposal embodied in this book is that a third division should be recognized—that of Student Personnel. Such a division already exists in an unrecognized state. It is naturally composed of people who are responsible for the social life, health, living conditions, and extra-curricular activities of the student body, and for research having to do specifically with some phase of student life or the individual student. Everyone in the university who is concerned primarily with the student as an individual rather than primarily with subject matter belongs to such a division.

Our contention is, further, that this Personnel Division should have an official head, some man or woman who is an expert in personnel administration. It should be the duty of this person to coördinate the efforts of all personnel officers: advisors, placement officers, Deans of Men and of Women, physicians, psychiatrists, etc., and to make them most effective in the interest of each student.

A diagram is presented on page 208 depicting this type of organization. Although the Executive Officer of the Department of Student Personnel is represented in this diagram as having some authority over certain officers such as the Registrar, physicians, Deans, etc., he does not, in reality, exert authority. He rather coördinates the efforts of all officers in the University having to do with personnel service and research. The aim of this officer is not to superimpose, not to bring about compulsory conformity with prescribed methods, but rather to encourage coöperative effort toward desired objectives which will have been democratically agreed upon.

The person who attempts to fill this position must be not only able to win coöperation from those with whom he works; he must also be trained in the application of old and the development of new scientific techniques in this field of student life. He is essentially a coördinator, seeing all phases of the work to be

done, overstressing none to the neglect of the rest. He must be at home in the field of research. He must be able to administer an efficient system of records, though he need not do the clerical work himself. He must understand interviewing techniques, but he cannot possibly attempt successfully to handle the entire interviewing program in a student body of five hundred or five thousand without skilled assistance. He must understand the value of applied psychology and psychiatry and know when they should be used, though he need not be a psychiatrist himself. He should promote the most up-to-date standards of physical health for individual students, but should not be expected to be himself a physician. He should be familiar with the whole educational ladder, but need not be an expert in nursery school, primary, or secondary school education. He should be a keen student of economics and sociology, should know something of the whole vocational field as it exists today, should understand placement technique, but he need be a specialist in none of these fields. He should thoroughly recognize the educational importance of the social and extra-curricular life on the campus, but he need not himself manage the social calendar, nor personally supervise each student activity. He should have a thorough conception of the importance of adequate housing of students, but may expect to employ the help of experts in planning dormitories, of an assistant in appointing students to rooms, and of other trained people to administer the dormitories. He should, in short, be an expert in Personnel Administration with a professional training in this field.

The question most frequently asked is: Why can't someone else act as Director of Personnel; the Admissions Officer, the Social Director, the Dean of Men or Dean of Women, etc.? Many people at present cannot see that there is any necessity for a separate Department of Personnel or a Director of Personnel. They believe that everything that should or could be delegated

to such an administrative officer can be done quite as effectively in the office of one of the now-existent deans.

If one of these officers has all of the personal qualifications required of one who is successfully to administer the field of student life, and if the limitations imposed by the traditions and administrative personnel of his situation allow, there is no reason why he should not in fact, if not in name, become Director of Personnel.

It may be that in many of the smaller colleges—at least for some time to come—the president himself will retain this function of his office that in the larger institutions he would not have time to perform. He may feel that he has time and is capable of coördinating and supplementing as effectively as could any other specialist all of the various personnel functions in his institution. In many cases, however, the president will find himself more interested in maintaining an objective supervisory relation toward the various administrative divisions, leaving himself free to throw his efforts wherever they seem most to be needed. In this latter case he will turn over to a member of his staff who is trained in personnel administration this function which pertains to his office, just as he has in most instances turned over long since to the Dean of Instruction the direct responsibility for those academic duties which also pertained originally to his office.

It makes little difference what the head of the Division of Personnel is called—whether "Dean" or "Vice-President" or "Assistant to the President" or "Director of Personnel." The important considerations are that this field receive recognition in the educational scheme, and that the person to whom the responsibility for coördinating this field is delegated shall be a person trained in personnel methods.

The objections most frequently raised will perhaps be that such a plan of organization tends to increase the danger of stifling personal initiative; that there would be a tendency to control and regulate student activities more than is desirable;

that such an officer as the Director of Personnel will take authority away from someone already charged with performing certain service or research functions in the personnel field.

The success of the Director of Personnel will depend upon his being able to demonstrate that he has no desire to usurp any authority or responsibility already allocated to competent people—that his work is supplementary and coördinating in nature, and that his existence can be fully justified in the beneficial results that coördination and balancing of scattered efforts can gain for the individual student.

If the Director of Personnel were inclined to be autocratic and dictatorial and did not have a broad conception of the educational value of student activities, for example, when left entirely in the hands of students, he would not be qualified to render the service needed in this field. On the other hand, centralization of the scattered efforts on behalf of the welfare of individual students, brought about through the coördinating functions of this officer, could not possibly meet with objection. It is, for instance, entirely possible and desirable for the efforts of the health agencies to be more effectively coördinated with the whole life of every student. This can be accomplished without loss of autonomy.

If the Department of Personnel is organized as a Staff Department—as opposed to a Line Department—there should be no danger that the Director of Personnel will usurp someone's else authority. Scott and Clothier in *Personnel Management* declare that: "It is obvious that the Personnel Department in any organization is principally a Staff department, because its function is to render specialized service to the operating departments with reference to increasing the effectiveness of their personnel." [1]

Since the methods of personnel work are, to a large extent, inductive, it is possible for it to function without setting up elaborate hypotheses. It may begin with surveys in order to discover

[1] Scott and Clothier, *Personnel Management,* A. W. Shaw Company, 1923, p. 67.

the facts of the situations with which it is concerned. It employs specific measurements, makes objective statistical studies, and leads through these to the analysis of situations, methods, and the formulation of solutions which it recommends for consideration to those who have the responsibility for taking legislative action.

A mere beginning has been made toward developing techniques by means of which facts can be discovered and effective programs outlined. Work in the field of student personnel, in spite of the fact that we have seen the addition of more and more specialists, all devoted to some aspect of it, is still in a fairly unrecognized, undeveloped, and uncoördinated state. Much research needs to be done in order that service to individual students may be more effective.

Some of these problems that must be attacked are:

1. Of what does higher education consist? Does it consist merely of the teaching of facts, the "training of the mind," or should it have a much broader implication: the all-round development of a student's attitudes, his entire overt behavior, his ability to think clearly his own way through to desirable social objectives, and his ability to influence others to adopt these objectives? If one has the latter concept of what higher education should accomplish for students who seem capable of being thus educated, is the present college consciously attempting to accomplish this result? What new techniques must be evolved and adopted to aid in this type of education?

2. In all the work that is being done on the problem of selection, some criteria must be adopted as to what constitutes "success" in college. The most commonly used criterion has, until the present time, been college marks. But do college marks satisfactorily serve as an indication of success or failure? They seem an unreliable base to use as a criterion, when we consider that the correlation between first and second semester college grades is only about +.66. When we consider that selective methods, objective tests, rating scales, interviewing methods, and "guidance"

work are checked, for the most part, by this unreliable criterion, it makes one less enthusiastic about the progress that has been made thus far and throws the attention back to the fundamental question: What is success?

3. If we assume that we are able to obtain an indication of a student's ability to profit by college education by means of the instruments that have been evolved, we have solved only half of the whole problem. The whole question as to why students who seem equally gifted mentally do not exert the same effort in the use of their mental powers still remains to be solved. The question of motivation needs much research. What are the incentives to effort that can be brought to bear, and which of these incentives can be used to best effect in the development of which students?

4. More experimentation of a carefully controlled nature is needed on the college level. There is, at present, a significant movement toward the adoption of new ideas in collegiate education. Honors courses, orientation courses, sectioning, etc., are all being enthusiastically seized upon, but little effort is given to evaluating their results. Variation is encouraging in the hopes that it holds out for future development, but variation should be accompanied by scientific control that will make possible the evaluation of results.

5. The college must become more conscious of all the influences —aside from those of the classroom—that play upon each student; it must learn to evaluate the effects of these influences in terms of individuals, and attempt to modify them so that the effects will be desirable in terms of individuals.

6. The college must develop methods of obtaining meaningful information regarding the sixteen or more years that each student has lived before he enters college. The continuity of the educational process in terms of length should receive more recognition by the college; it should begin its interest in its students long before those individuals apply for admission. More and more research is indicating how inadequate for a thorough understand-

ing of the student are snapshot pictures of his mental make-up, as shown by one set of tests given shortly before he enters college and by the meager amount of information now obtainable from his high school superintendent. As Professor Ben D. Wood of Columbia University has said: "It is obvious that guidance at any time depends not merely upon measurements and observations at that particular time, but upon carefully preserved records of all the measurements and significant observations that have been made throughout his previous life."

As soon as possible the college must have a much more complete history of each student whom it undertakes to educate;[2] it must deal with him more intelligently, not as an individual who comes with no previous vital experiences that condition and explain his whole personality, but as a person already the product of sixteen or more years which have fairly well tested his caliber and determined what he will become.

7. The college should recognize its responsibility to society for the achievements of its graduates. It should continue an interest in them for more important reasons than financial ones—primarily because a continued check on the performances of its alumni is the one best method the college has of evaluating the results of its own efforts. No factory that manufactures a high-grade article would be satisfied without carefully checking from time to time to see how that product was standing up under usage, where its weakness and strength lay, and how the process of its manufacture could be changed so as to improve it. No more should the college be satisfied to run a student through a traditional process and not consider the implications that the finished product may have for its own processes.

[2] The Cumulative Record Folder of the American Council on Education (see page 74) is a step in this direction, as is also a cumulative study through college of students who graduated from high school in 1928, which is being made by the Carnegie Foundation for the Advancement of Teaching, in coöperation with the Joint Commission of the Association of Pennsylvania College Presidents and the State Department of Public Instruction.

The problems presented above are obviously of a general nature. Throughout the survey are indications for numerous researches that should be undertaken. If personnel work is to make a real contribution to education, however, combined with a thorough and continued application of the inductive method of procedure must be also a comprehension of the broader philosophical problems that underlie all its work.

It is generally admitted that the field of student life, in other than its strictly academic phase, and the individual student himself are constantly receiving more attention. To avoid the danger of sentimentalizing this increased interest, those trained in personnel work must work toward the building up of a body of facts through the application of methods already evolved, and toward the evolutions of new techniques, so that ultimately we shall be able to say that personnel work effectively promotes the highest all-round development of each person who is a student in our colleges.

Appendices

NORTHWESTERN UNIVERSITY
EVANSTON, ILLINOIS

READ THIS FIRST

To Applicants for Admission to Northwestern University:

Enclosed are certain blank forms which are to be filled out and returned before your application can be passed upon. You are responsible for seeing that these are placed in the hands of the proper persons. These persons should return them directly to the Director of Admissions, Northwestern University, Evanston, Ill.

Following are the blanks sent you:

(If none is checked then all are enclosed).

1. Application for Admission—Admission 1A and 1B.
   Both 1A and 1B must be filled out by you.

2. Record of Secondary School Work—Admission II—to be filled out by your high school principal.

3. Personal Qualification Blank—Admission III.
   A. To be filled out by your high school principal.
   B. To be filled out by either parent or by your guardian.
   C. To be filled out by a third person, preferably a graduate of Northwestern University.

4. Physician's Statement—Admission IV—to be filled out by a regularly licensed physician.

Address all inquiries concerning admission to the Director of Admissions, Northwestern University, Evanston, Ill.

Date Sent.....

N.U. 1-26 FORM AD REVISED

NORTHWESTERN UNIVERSITY
EVANSTON, ILLINOIS

ADMISSION 1A

To be filled out in duplicate by the applicant in his own handwriting (not typewritten) and sent to the Director of Admissions, Northwestern University, Evanston, Illinois.

Misrepresentation in any statement will be considered sufficient grounds for denial of application or for exclusion.

Date June 17 1924

Name in full Anne Louise Adams
(Print in capital letters first name first, middle name in full and last name).

Place of birth Chicago, Illinois Date of birth Oct. 12, 1905

Home address: street and number 4634 Ogden Avenue

City Chicago State Illinois

Please fill out your scholastic history as requested on the form below, carefully and in detail.

High School	Name of School (public or private)	Town or City	State	Age When Entering
1	Lake View High School	Chicago	Illinois	13
2	" " " "	"	"	
3	" " " "	"	"	
4	" " " "	"	"	
Additional				
Years:				
Remarks:				

College Years			
1			
2			
3			
4			
Additional			
Years:			
Remarks:			

I hereby certify that the statement above is correct and complete so far as my knowledge goes.

Anne Louise Adams

Please record below all courses of study that you have pursued outside the regular school program, such as correspondence courses, commerce courses, studies in music, art, mechanics and the like.

NORTHWESTERN UNIVERSITY
EVANSTON, ILLINOIS

ADMISSION 1A

2. List in order of your preference the student activities in which you have participated *Athletics, Camp Fire Girls*

3. Check the one of the following schools to which you are now making application and underline the one, if any, which you wish to enter later:
Liberal Art *V*, Engineering, Education, Speech, Music,
Commerce, Journalism, Dentistry, Medicine, Law
When do you wish to enter? *September 1924*

4. Father's name in full *John Alden Adams* Living ~~or deceased~~ *Living*

5. (a) Father's place of birth *Ontario, Canada*
(b) Father's occupation (just what does he do?) *Switchman for Chicago and Northwestern Railroad*
(c) Did he attend college? *No* If so, how many years?
(d) What college and class? Did he graduate?

6. Mother's name in full *Anne Thompson Adams* Living ~~or deceased~~ *Living*

7. (a) Mother's place of birth *England*
(b) Did she attend college? *No* If so, how many years?
(c) What college and class? Did she graduate?

8. Of what church or other religious sect, if any, are you a member? *Presbyterian*
If not a church member, what is your church preference, if any?

9. In what ways, if any, have you contributed toward your own support while preparing for college? (Just what did you do and for how long?) *Stenographic work for two years*

10. What did you do last summer? *Stenographic work*

11. State fully from what source or sources you expect to derive your financial support while in college? *From money saved in last two years and from outside work for compensation summers and during college year*

12. How much time do you plan to spend working for compensation during the college year? *10 hours* hours per week

13. How much time will you spend going to and from your work? *Perhaps 5 hours* hours per week

14. Do you plan to live on the campus? *No* If not, how much time will you spend going to and from the campus? *6 hours* hours per week

15. What position or profession do you plan to enter after graduation from college? *Teaching physical education*
If undecided, give present preference (in order of choice)
(1) (2) (3)

16. Of all the things you have accomplished, which one, two or three have given you the greatest personal satisfaction? *Doing well in my high school work; being successful in sports in high school; being able to earn my own living*

FILL OUT DUPLICATE COPY BUT DO NOT DETACH

DO NOT DETACH

NORTHWESTERN UNIVERSITY
EVANSTON, ILLINOIS

ADMISSION 1B

To be filled out in duplicate by the applicant in his own handwriting (not typewritten) and sent to the Director of Admissions, Northwestern University, Evanston, Illinois.

Misrepresentation in any statement will be considered sufficient grounds for denial of application or for exclusion.

Date June 17 1924

Name in full Anne Louise Adams
(Print in capital letters first name first, middle name in full and last name).

Place of birth Chicago, Illinois Date of birth Oct. 12, 1905

Home address: street and number 4634 Ogden Avenue

City Chicago State Illinois

Please fill out your scholastic history as requested on the form below, carefully and in detail.

High School	Name of School (public or private)	Town or City	State	Age When Entering
1	Lake View High School	Chicago	Illinois	13
2	" " " "	"	"	
3	" " " "	"	"	
4	" " " "	"	"	
Additional				
Years:				
Remarks:				

College Years			
1			
2			
3			
4			
Additional			
Years:			
Remarks:			

I hereby certify that the statement above is correct and complete so far as my knowledge goes.

Anne Louise Adams

Please record below all courses of study that you have pursued outside the regular school program, such as correspondence courses, commerce courses, studies in music, art, mechanics and the like.

NORTHWESTERN UNIVERSITY
EVANSTON, ILLINOIS

ADMISSION 1B

2. List in order of your preference the student activities in which you have participated Athletics Camp Fire Girls
3. Check the one of the following schools to which you are now making application and underline the one, if any, which you wish to enter later:
   Liberal Art ✓, Engineering, Education, Speech, Music,
   Commerce, Journalism, Dentistry, Medicine, Law,
   When do you wish to enter? Sept 1924
4. Father's name in full John Alden Adams Living ~~or deceased~~ Living
5. (a) Father's place of birth Ontario, Canada
   (b) Father's occupation (just what does he do?) Switchman for Chicago and Northwestern Railroad
   (c) Did he attend college? No If so, how many years?
   (d) What college and class? Did he graduate?
6. Mother's name in full Anne Thompson Adams Living ~~or deceased~~ Living
7. (a) Mother's place of birth England
   (b) Did she attend college? No If so, how many years?
   (c) What college and class? Did she graduate?
8. Of what church or other religious sect, if any, are you a member? Presbyterian
   If not a church member, what is your church preference, if any?
9. In what ways, if any, have you contributed toward your own support while preparing for college? (Just what did you do and for how long?) Stenographic work for two years
10. What did you do last summer? Stenographic work
11. State fully from what source or sources you expect to derive your financial support while in college? From money saved in last two years, and from outside work for compensation summers and during the college year
12. How much time do you plan to spend working for compensation during the college year? 10 hours per week
13. How much time will you spend going to and from your work? Perhaps 5 hours per week
14. Do you plan to live on the campus? No If not, how much time will you spend going to and from the campus? 6 hours per week
15. What position or profession do you plan to enter after graduation from college? Teaching - physical education
    If undecided, give present preference (in order of choice)
    (1) (2) (3)
16. Of all the things you have accomplished, which one, two or three have given you the greatest personal satisfaction? Doing well in my high school work; being successful in sports in high school; being able to earn my own living.

FILL OUT DUPLICATE COPY BUT DO NOT DETACH

DO NOT DETACH

ADMISSION II

This blank should be filled out and signed by the principal of the school, and mailed DIRECTLY to the Director of Admissions, Northwestern University.

N U 4-27 FORM AD REVISED

NORTHWESTERN UNIVERSITY
EVANSTON, ILLINOIS

ADMISSION II

The rules of admission to the college are such that a statement of the information requested under Scholastic Standing is of decided advantage to the applicant.

I. Scholastic Standing:

1. In what quarter of the class is he? First quarter
   (1st quarter is the highest quarter)
2. What is his rank in the class, counting 1 as the highest?
   Is he 1st, 10th, or 99th? 12th How many students in his class? 188
3. How long has he been attending this school? 4 years
   Scholastic honors? Honor roll
4. In what subjects did he fail at any time to receive a passing grade? None

II. Non-scholastic Record:

1. Athletics:
   Is he a letter man? If so, in what sports?
   Captain of any teams? Basket ball 1921 & 1922 Hockey 1920
2. Other School Activities:
   What has been his (her) part in publications, debate, public speaking, dramatics, class or other organizations?
   What activities?
   Offices or positions? Secretary of her class 1922
3. Activities outside of school:
   What activities? Camp Fire Girls
   Offices or positions? Leader

III. Miscellaneous:

1. Church preference or membership Presbyterian
2. Financial status:
   Entirely, partially, or not at all self-supporting? I think partially
3. Has he any mental or physical peculiarities or defects? No
4. Add any information which is not covered by the above and which you think we ought to have

NORTHWESTERN UNIVERSITY
EVANSTON, ILLINOIS

ADMISSION II

Name of Applicant Anne (First Name) Louise (Middle Name) Adams (Last Name)
Applicant's Home Address 4634 Ogden Avenue (Street and number), Chicago, Illinois (City and State)
Applicant's Nationality American Race Caucasian Color White
Name of school Lake View High School School address Chicago, Illinois (City and State)
State whether a public or a private school Public
Passing grade of school 75% Grade required for recommendation to college 80%
Number of minutes in each recitation 40 What subjects occupied double recitation periods
How long did applicant attend this school? 4 years When did the applicant graduate? 1923
Do you recommend this student for admission to Northwestern? Yes
Date June 17, 1924 Name of Principal Perry A. Brown

Do Not Write in This Column	STUDIES	Yr. of Crs. When Taken (I II III IV)	No. of Weeks Pursued	No. of Periods per Week	Grade	Do Not Write in This Column	STUDIES	Yr. of Crs. When Taken (I II III IV)	No. of Weeks Pursued	No. of Periods per Week	Grade
	ENGLISH—First Year	I	36	5	93		PHYSICS	IV	36	5	90
	Second Year	II	36	5	89		Laboratory				
	Third Year	III	36	5	91		CHEMISTRY				
	Fourth Year	IV	36	5	94		Laboratory				
	History of Literature						BOTANY	II	36	5	95
	GREEK—First Year						Laboratory				
	Second Year						ZOOLOGY	III	36	5	93
	Third Year						Laboratory				
	LATIN—First Year	III	36	5	85		PHYSIOGRAPHY				
	Second Year	IV	36	5	88		GEOGRAPHY				
	Third Year						INTRODUCTORY SCIENCE				
	Fourth Year						Laboratory				
	FRENCH—First Year	I	36	5	89		PHYSIOLOGY	III	36	2	91
	Second Year	II	36	5	93		AGRICULTURE				
	Third Year						COMMERCIAL BRANCHES				
	Fourth Year						"				
	GERMAN—First Year						"				
	Second Year						"				
	Third Year						"				
	Fourth Year						"				
	SPANISH—First Year						DOMESTIC ART				
	Second Year						DOMESTIC SCIENCE				
	Third Year						MECHANICAL DRAWING				
	Fourth Year						FREE HAND DRAWING				
	HISTORY—Ancient	I	36	5	94		INDUSTRIAL TRAINING				
	Medieval and Modern	II	36	5	91		MANUAL TRAINING				
	English						MUSIC				
	United States						NORMAL TRAINING				
	Civics						PUBLIC SPEAKING				
	ALGEBRA—Elementary	I	36	5	88		Other Subjects				
	Advanced										
	GEOMETRY—Plane	III	36	5	87						
	Solid										
	TRIGONOMETRY	IV	36	5	89						

NORTHWESTERN UNIVERSITY
EVANSTON, ILLINOIS

ADMISSION III A

This blank should be filled out by the principal of the school or by some teacher whom he shall designate and mailed DIRECTLY to the Director of Admissions, Northwestern University.

Name of Applicant Anne (First Name) Louise (Middle Name) Adams (Last Name)

Applicant's Nationality American Race Caucasian Color White

Answer these questions briefly in any manner you see fit.

1. How has ~~his~~ her seriousness of purpose? She was a very good student in High School and one of our outstanding girls.

2. What are the chief interests of those with whom ~~his~~ her popularity is most pronounced? Scholastic, athletic, and extra-curricular.

3. In what way do you consider the applicant will benefit most by a college education? She should become a valuable teacher.

4. What degree of success in his studies do you predict for the applicant? (Use A to indicate highest scholastic marks, B to indicate next to the highest, C average, D close to average, and E possible failure.) A or L

5. State anything that you think might interest us or be of value in helping the applicant, such as some outstanding trait that should be restrained or cultivated.

6. Some persons are not benefited by college life. Do you know of any circumstance that would make it seem to the applicant's advantage either to forego or delay entrance to this University? No

Remarks: Miss Adams is a worthy young lady and will give her best efforts to study in her chosen field.

Date June 17, 1924

Signed Perry A. Brown
High School Principal.

NORTHWESTERN UNIVERSITY
EVANSTON, ILLINOIS

ADMISSION III B

This blank should be filled out by either parent or by the guardian of the applicant and mailed DIRECTLY to the Director of Admissions, Northwestern University.

Name of Applicant: Anne (First Name) Louise (Middle Name) Adams (Last Name)

Applicant's Nationality: American Race: Caucasian Color: White

Answer these questions briefly in any manner you see fit.

1. How has ~~his~~ her seriousness of purpose? Yes Did well in High School and has worked for two years saving money to go to College

2. What are the chief interests of those with whom ~~his~~ her popularity is most pronounced? Scholastic and athletic

3. In what way do you consider the applicant will benefit most by a college education? Enable her to teach physical education

4. What degree of success in ~~his~~ her studies do you predict for the applicant? (Use A to indicate highest scholastic marks, B to indicate next to the highest, C average, D close to average, and E possible failure.) B to A

5. State anything that you think might interest us or be of value in helping the applicant, such as some outstanding trait that should be restrained or cultivated. Tendency to be too serious minded

6. Some persons are not benefited by college life. Do you know of any circumstance that would make it seem to the applicant's advantage either to forego or delay entrance to this University? No

Remarks:

Date June 17, 1924

Signed John Alden Adams
Parent ~~or Guardian~~
(Indicate relationship)

N. U. 4-27 FORM AD REVISED

NORTHWESTERN UNIVERSITY
EVANSTON, ILLINOIS

ADMISSION III C

This blank should be filled out and mailed DIRECTLY to the Director of Admissions, Northwestern University.

Name of Applicant: Anne (First Name) Louise (Middle Name) Adams (Last Name)

Applicant's Nationality: American Race: Caucasian Color: White

Answer these questions briefly in any manner you see fit.

1. How has ~~she~~ her demonstrated ~~his~~ her seriousness of purpose?
Has taken high school preparation for College very seriously and has demonstrated a vital interest in physical education.

2. What are the chief interests of those with whom ~~his~~ her popularity is most pronounced?
Extra-curricular activities and sports.

3. In what way do you consider the applicant will benefit most by a college education?
She will become a successful teacher.

4. What degree of success in his studies do you predict for the applicant? (Use A to indicate highest scholastic marks, B to indicate next to the highest, C average, D close to average, and E possible failure.) B to A

5. State anything that you think might interest us or be of value in helping the applicant, such as some outstanding trait that should be restrained or cultivated.
She needs some social polish

6. Some persons are not benefited by college life. Do you know of any circumstance that would make it seem to the applicant's advantage either to forego or delay entrance to this University? No

Remarks: It is my opinion that Miss Adams will be a valuable student in our University.

Signed: Jane K. Brooks

Date: June 17, 1924

Of what college are you a graduate? Northwestern 1921

B.U. 4-27 FORM AS REVISED

NORTHWESTERN UNIVERSITY
EVANSTON, ILLINOIS

ADMISSION IV

PHYSICIAN'S STATEMENT

Anne Louise Adams (Name of Applicant) has applied for admission to Northwestern University. We are very anxious to have confidential information concerning this individual. The information you give will never be communicated to the applicant, and will be treated in a strictly confidential, professional manner. We request, therefore, your honest and cordial co-operation. When this blank has been filled out, please send it directly to the Director of Admissions, Northwestern University, Evanston, Illinois.

Name of person sending this report Oscar D. Wood M.D.
Are you in any way related to the applicant? No If so, how?

After a complete medical examination of the applicant, I certify that ~~his~~ her present physical condition is as follows:

General health, vitality, and endurance Good
Condition of heart (a) Rate 80 (b) Murmurs None
Is there evidence of tuberculosis?
Is there any evidence of emotional and mental instability?
Is there any evidence of thyroid disease? Thyroid palpable
Is the applicant free from other communicable diseases?
Note recent operations (a) character (b) date
Note recent diseases (a) character (b) date
Date of last successful vaccination against smallpox 1917
Are you the applicant's family physician? Yes
How long have you known the applicant? All her life
Please note below information which may be of value to the University Health Officer

Date June 17, 1924

Oscar D. Wood M. D.
Address 4553 Lawndale Ave.
Chicago, Ill.

R U. 4-27 FORM AO REVISED

APPENDIX B

Freshman Week

Northwestern University

college of liberal arts

school of speech

school of engineering

General Information and Instruction for First Year Students

September, 1926-1927

Monday, September 19th

	8:30 A.M.	Preliminary registration for all students entering the School of Engineering. (Swift Hall of Engineering)
Attendance required.	9:00 A.M.	*Psychological Test* for all Freshman students entering the College of Liberal Arts, The School of Speech, and the School of Engineering. (Fisk Hall)
Attendance required.	2:00 P.M.	*English Test* for all freshman students entering the College of Liberal Arts and the School of Speech. (Fisk Hall)
	4:00 P.M.	"Refresher." The Y.W.C.A. will serve refreshments on the South Lawn (adjacent to Harris Hall).
	8:00 P.M.	Mixer for all freshman men, auspices of Student Council. (Patten Gym.)

TUESDAY, SEPTEMBER 20TH

Attendance required. 9:00 A.M. *Mathematics Test* for all freshman students entering the College of Liberal Arts. (Fisk Hall)

Attendance required. 2:00 P.M. *Foreign Language Test* for all freshman students entering the College of Liberal Arts from unaccredited preparatory schools or the lower half of their high school class. (Harris Hall)

4:00 P.M. Freshman Commission Party for all freshman women. (Harris Hall)

4:00 P.M. Athletic Games for freshman men. (Patten Gym.)

WEDNESDAY, SEPTEMBER 21ST

Attendance required. 2:00 P.M. *Meeting for all freshmen.* Dean R. A. Kent will be the chairman of this meeting and Professor John A. Scott will speak. (Fisk Hall)

3:30 P.M. Reception to new freshman women under the auspices of Mortar Board, Senior Women's Society. (Harris Hall)

8:00 P.M. Entertainment under the auspices of the Forensic Society. (Annie May Swift Hall)

THURSDAY, SEPTEMBER 22ND

Registration

Attendance required. 8:30 A.M. All students who wish to register as freshmen in the College of Liberal Arts will go to Patten Gymnasium. All students who wish to register as freshmen

in the School of Speech will go to Annie May Swift Hall. All students who wish to register as freshmen in the School of Engineering will go to Swift Hall of Engineering.

Attendance required.

9:00 A.M. *Psychological Test* for all new students not entering as freshmen. (Harris Hall)

FRIDAY, SEPTEMBER 23RD

Attendance required.

10:00 A.M. *Meeting for all freshmen.* Men will meet in Swift Hall of Engineering 111. Dean Armstrong will be the chairman of this meeting. Dean Heilman and Dean Stout will speak.

Women will meet in Harris Hall 107. Virginia Bixby will act as chairman of this meeting and Dean Richardson will speak.

8:00 P.M. "Cap-crowning" ceremony for all freshman men. (Patten Gym.)

SATURDAY, SEPTEMBER 24TH

8:00 P.M. "Y. M.-Y. W. Joint" at Patten Gymnasium.

SUNDAY, SEPTEMBER 25TH

It is suggested that students attend the church of their own preference. Several church announcements are listed on page 5. For complete directory see Students' Handbook.

General Information

1. Office Hours

Registrar's Office, University Hall. Hours 9:00-12:00, 2:00-4:00.

Dean's Office, University Hall. Hours 9:00-12:00, 2:00-4:30.

Personnel Office, University Hall. Hours 8:30-12:30, 2:00-4:30.

Office of the Dean of Men, University Hall. Hours 9:00-12:30, 2:00-5:00.

Office of the Dean of Women, University Hall. Hours 9:00-12:30, 2:00-5:00.

Y.M.C.A. Office, Fisk Hall. Hours 8:30-5:00.

Y.W.C.A. Office, University Hall. Hours 8:30-5:00.

2. Rooms

For Men

All applications for rooms may be made through the Office of the Dean of Men. This office keeps a list of all rooms in men's approved houses. This list includes the rooms in the four dormitories on the Men's Quadrangle, operated and maintained by the University, as well as the rooms in private homes and rooming houses near the campus. If reservations have already been made, immediately upon arrival in Evanston applicants should call at the Office of the Dean of Men.

For Women

Women not living in their own homes are required to reside in the Halls established as women's residences or in the approved houses under private management, unless permission to live elsewhere is granted in advance. For general information concerning residence for women, address Dean Richardson, University Hall, Evanston, Ill.

3. Employment

For Men

The Y.M.C.A. operates an employment bureau for part-time work for men students. Those intending to earn part of their college expenses should plan to arrive a day or so early in order to locate desirable positions.

For Women

The Y.W.C.A. operates an employment bureau for part-time work for women students.

Church Programs

Sunday, September 25th

First Methodist Church (*Hinman Ave. and Church St.*)

Morning Worship 10:30 A.M.—Sermon by Dr. Tittle.

Young People's Dept. 5:30 P.M.—Social hour, supper, and Devotional hour.

First Baptist Church (*Chicago Ave. and Lake St.*)

Morning Worship 11:00 A.M.—Sermon by Dr. Stifler.

Young People's Service 7:00 P.M.—Social program and Devotional hour.

First Presbyterian Church (*Chicago Ave. and Lake St.*)

Morning Worship 11:00 A.M.—Sermon by Dr. Jones.

Young People's Dept. 6:00 P.M.—Social hour, supper, and Vesper Service.

First Congregational Church (*Hinman Ave. at Grove and Lake Sts.*)

Morning Worship 11:00 A.M.—Sermon by Dr. Brown.

Scrooby Club 6:00 P.M.—Social hour and Devotional service.

St. Luke's Church (Episcopal) (Hinman Ave. and Lee St.)

Holy Communion 11:00 A.M.—Dr. Stewart, Rector.
Gamma Kappa Delta 6:00 P.M.—Supper and Program. (Young People's Society)

St. Paul's Lutheran Church (Greenwood Boul. and Maple Ave.)

Morning Worship 11:00 A.M.—Sermon by Rev. Naumann.
Luther League 6:30 P.M.

All Soul's Unitarian Church (Chicago Ave. near Greenwood Ave.)

Morning Worship 11:00 A.M.

First Church of Christ, Scientist (Chicago Ave. and Grove St.)

Sunday Services 11:00 A.M. and 8:00 P.M.

St. Mary's (Catholic) (Oak Ave. and Lake St.)

Masses, 6:30, 8:00, 9:00, 10:15, and 11:15.

Special Notices

1. Tests

Those who have taken the Psychological, Mathematics, English, and Foreign Language tests given at the University in June and August, need not take the tests as scheduled in the program.

2. Physical Examinations

For Men

All Freshman men will make appointments at registration Thursday, Sept. 22, (Patten Gym.) for physical and medical examinations to be given beginning September 26.

For Women

All new women students are required to have a medical examination at the University, given by the University Physician. Appointments for medical examinations may be made

either at Roland Hall, 1740 Orrington Avenue, on Monday, Tuesday, and Wednesday, September 19, 20, and 21, between 8:30 A.M. and 2:30 P.M., or on Thursday, September 22, at Patten Gymnasium while registering for academic work. It is desirable to secure appointments for early examinations in order to avoid conflicts after class work begins.

3. Attendance at Meetings

On occasions in the program marked *"Attendance required"* the attendance of each student will be checked.

4. Freshman Conference

All freshman men who plan to attend the Freshman Conference at the Bowen Country Club, Waukegan, Ill., should meet in the Y.M.C.A. Office in Fisk Hall, at 8:30 A.M., Saturday, September 17th.

5. Daylight Saving Time

Those planning to arrive in Evanston on Monday should make allowance for Daylight Saving Time, which is one hour faster than Central Standard Time. The Psychological Test will be given at 9:00 A.M. Daylight Saving Time.

6. Trains from Chicago

Take either the "Elevated" marked "Evanston Express" or the Chicago & Northwestern Railroad, and get off at Davis St. To reach the campus, walk three blocks east and three blocks north.

APPENDIX C

Personnel Questionnaire for Psychology

Name.....Man.....Woman.....
Place of birth.....Year.....
Birthplace of father.....Of mother.....
Draw a circle around the highest grade of school reached:
Grade 1, 2, 3, 4, 5, 6, 7, 8: High School, year 1, 2, 3, 4:
College, year 1, 2, 3, 4:
How long since you last attended regular day school?.....years.
How long have you attended evening school?.....years.
Where?.....
What correspondence courses, if any, have you taken?.....
.....
Are you a candidate here for a degree?.....Or diploma?.....
Are you taking this psychology course for credit?.....
Do you plan to take the examinations?.....
Where are you now employed?.....
.....In what position?.....
Check the one or two items which most nearly indicate your purpose in taking psychology: General information.....;
As an aid in my specific work.....; Cultural purpose.....;
Character reading.....; Self-analysis.....; Credit.....;
Some other reason.....
Do you expect to take only one course in psychology?.....
Or do you hope to take another?.....
What other psychology courses would you like to take?.....
.....
For what vocation are you preparing?.....

What kind of place have you for study: Good.....Fair.....
Poor.....

How much time do you have to study psychology: 8, 7, 6, 5, 4, 3, 2, 1 hours per week.

Do you have access to and time for using library?.....

What authors or books have you read on psychology?.....
.....

What three magazines do you most frequently read?.....
.....

What books have you read within the last year?.....
.....

AGE DISTRIBUTION

Year of Birth	*Number*	*Ages*
1880	1	46
1881	1	45
1883	1	43
1887	1	39
1888	1	38
1889	1	37
1890	2	36
1891	2	35
1892	2	34
1893	7	33
1894	5	32
1895	5	31
1896	5	30
1897	6	29
1898	9	28
1899	10	27
1900	14	26
1901	11	25
1902	26	24
1903	28	23
1904	26	22
1905	35	21
1906	34	20
1907	45	19
1908	18	18
1909	7	17
1910	1	16
No answer	8	
Total	312	

PREVIOUS EDUCATION

Answer to the following question: Draw a circle around the highest grade of school reached: Grade 1, 2, 3, 4, 5, 6, 7, 8; High School, year 1, 2, 3, 4; College, year 1, 2, 3, 4.

Year attained	*Men*	*Women*	
5th grade	1		
8th grade	6	2	
1st year high school	4	1	
2nd year high school	16	3	
3rd year high school	3	3	
4th year high school	95	24	
5th (graduate work)	1	1	
1st year college	62	12	
2nd year college	31	8	
3rd year college	15	1	
4th year college	17		
No answer	2	2	
Cannot classify	1	1	
Total	254	58	312

ADDITIONAL EDUCATION

Results from answers to questions: "How long have you attended evening school?_____Years. What correspondence courses, if any, have you taken?"

Years	*Men*	*Women*
1 years Business School	1	1
2 years Business School	1	
1 years Night School	53	13
2 years Night School	51	5
3 years Night School	17	7
4 years Night School	4	1
5 years Night School	6 (1 Law Degree)	2
6 years Night School	2	
7 years Night School	0	
8 years Night School	3	1
9 years Night School	2	
10 years Night School	1	
11 years Night School	1	
12 years Night School	0	
13 years Night School	1	
Correspondence Course	27	5

NATIONALITY

Student native-born	288
Student foreign-born	24
Parents both native	150
Parents both foreign-born	120
One parent foreign-born	38
Parents' nationality not given	4

STUDY CONDITIONS

Place of study:	good	170
	fair	123
	poor	13
	no answer	6

	Hours	*No. of Students*
Hours of study:	8	9
	7	2
	6	19
	5	12
	4	56
	3	83
	2	89
	1	21
	0	2
	no answer	19

Access to and time for using library:	yes	126
	no	141
	access but not much time	36
	no answer	9

COURSES DESIRED IN PSYCHOLOGY

45 desired no more than the one course.
82 expressed a desire for other courses (see questionnaire).

Courses Desired	*Number*	*Classification*	*Total*
Advertising and selling	93	A [a]	93
General course—advanced	16	B	20
Applied psychology	26	C	33
Social psychology	10	D	11
Personnel	18	E	18
Abnormal	5	F	12

[a] The capital letter designates a fundamental course, and the lower case letters designate request that can be satisfied by it. Thus C, Applied Psychology, includes the other items marked c, to give a total of 33 requests for Applied Psychology.

Experimental	3	b
Psychology of journalism	1	b
Self-analysis and character analysis	3	c
Educational	1	c
Merchandising	1	c
Business psychology	2	c
Race psychology	1	d
Criminology	4	f
Psychology of subnormal children	3	f
Desire all courses given	3	

PURPOSE IN TAKING PSYCHOLOGY

General information	177
Aid to specific work	141
Cultural purpose	77
Character reading	32
Self-analysis	48
Credit	106
Experimental work	1
"To study on a scientific basis and get maximum results."	
Curiosity	1
Prerequisite	4
"As a tool to better influence men through knowing more about them."	
"Help in my literary ambitions."	

BOOKS THAT HAVE BEEN READ

Text only	56
Text and one more	13
Text and two more	2
Text and three more	1
One only—not text	36
Two books—not text	10
Three books—not text	5
Nine books (no names given)	1
"Miscellaneous—indiscriminately"	108
No answer	79

GENERAL READING

While it is impossible to get the full reading list of a student who reads very much, nevertheless, a few of the figures may show the trend of reading. There were 74 who gave no answer at all, which would probably be equivalent to the answer "none." There were 29 who were honest enough to say that they had done no

reading at all during the past year. Sixteen had read only one book. Thirty-eight had read practically nothing except books pertaining to some form of business. There were nine who had read only the textbooks for courses they were taking. There were 60 who listed two or more books of the latest fiction. Among these, the books that were most widely read were: *Beau Geste, Show Boat, Private Life of Helen of Troy, The Silver Spoon, Nize Baby,* and the like. *Chevrons* has been read by eleven people; it was run serially in one of the Chicago newspapers.

Below is an abbreviated list of those books that have been read by more than one person with the number who gave it as a book that they had read during the past year.

Biography of Lincoln	4
Outline of History	4
Ivanhoe	4
Tale of Two Cities	4
Decameron	3
The Man Nobody Knows	3
The Three Musketeers	3
The American Tragedy	3
Kidnapped	3
Memoirs of Catherine the Great	2
Jurgen	2
The Scarlet Letter	2
Margaret Queen of Valois	2
The Mind in the Making	2
Emerson's Essays	2
Les Miserables	2
Twenty Years After	2
The Divine Comedy	2
The Crisis	2
Ariel	2
Why We Behave Like Human Beings	2
Adam Bede	2
The Royal Road to Romance	2
Innocents Abroad	2
Last Days of Pompeii	2
Anna Karenina	2
Vanity Fair	2
Autobiography of Cellini	2
Soundings	2

There were some who did not specify the names of the books, but gave the authors, indicating that one or more books by that author had been read.

Stevenson	5
Wells	4
Shaw	3
Poe	3
Kipling	3
France	5
Dickens	5
Sabatini	5
Tolstoi	2
Conrad	2
Balzac	2
Sandburg	3
Dostoivesky	2

RESULTS OF MENTAL TESTS

The Morgan Mental Alertness Test was given to all of the classes in psychology included in this survey. The average score made was 103.2, with a range of 31 to 157.

The same test was given to a large group of psychology students on the Evanston campus. The average score made was 115.8, with a range of 52 to 173. The difference thus indicated between the two groups is large enough to be decidedly significant.

A correlation of the Morgan test scores with grades made at the end of the semester shows the following results: For the total group the coefficient of correlation was +.29. It was found that the gradings assigned by one instructor (in two sections) gave a decidedly lower correlation coefficient than that of the other instructors. The gradings of the others taken by themselves showed a correlation coefficient of .66 with grades, which is decidedly high. It is probable that the Scott test, which we are trying out this semester (2nd semester, 1927-28) in another connection, will show a correlation figure above +.30. We are now working, also, on an improved form of the Morgan test which ought to be serviceable in the downtown section.

REPORT ON EXAMINATIONS FOR ADMISSION

In accordance with recent faculty action, entrance examinations were given at the beginning of the second semester to non-high school graduates, between the ages of 18 and 21, who applied to the downtown school for admission.

The examination included the Stanford Achievement Test in Reading, Arithmetic, Nature Study and Science, History and Literature, and Language Usage, and, as a supplement, the Scott Mental Alertness Test. Examinations were given to 23 applicants, with the following results:

Name	*Stanford Test Educational Age*	*Scott Test Score*	
L. A.	17.6	47	Admitted
W. E. B.	17.0	47	Admitted
G. J.	17.1	65	Admitted
E. K.	15.1	38	Admitted
J. K. McL.	17.0	44	Admitted
H. E. N.	16.9	50	Admitted
A. H. P.	17.0	58	Admitted
L. H. W.	17.3	58	Admitted
A. F. W.	16.7	53	Admitted
C. McC.	18.5	73	Admitted
R. J. M.	17.0	52	Admitted
W. C. F.	16.4	51	Admitted
L. R.	16.5	45	Admitted
V. E.	17.1	47	Admitted
D. E. T.	16.4	42	Admitted
F. R.	16.5	51	Admitted
E. T. M.	16.3	48	Admitted
J. E.	14.10	30	Rejected
C. H. L.	14.3	39	Rejected
I. M. W.	15.11	26	Rejected
A. W.	14.7	37	Rejected
M. W. M.	14.6	52	Rejected

It will be seen that in these examinations the requirements may be easy or hard, according to the degree of excellence demanded. We set the standard provisionally at a mark which seemed to indicate a probable ability to profit by the downtown classes. The performance of students selected will indicate whether the educational age requirement should be advanced in future tests.

APPENDIX D

Student Report on a Specific Course

Department .....
Course (giving catalog designation) .....
Instructor .....
This report covers the.....semester for 1927-1928.

For the purpose of studying instruction in the first two years of the University, the committee appointed, working through the Personnel Department, desires the following information.

Please answer all questions carefully. You need not sign your name to the report. The results of this report are to be used in a statistical survey, and will not affect any individual, either teacher or student.

1. Compared with other courses you have taken or are taking, is this course (check): Easy?.....Average?.....Hard?.....
2. (a) How many minutes do you average on preparation for each class meeting?.....
   (b) Total time spent in laboratory and preparation therefor per week.....
3. Check term which most nearly describes the interest you find in the course:
   (1) In preparation of assignments:
   Strong interest?.....; average interest?.....
   Weak interest? ..... boring?.....
   (2) In the *class hour:*
   Strong interest?.....; average interest?.....
   Weak interest? ..... boring?.....

4. Stimulus and broadening effects of course:
   (1) Does it yield new information, *facts:* Many?.....; few?.....; none?.....;
   (2) Has it resulted in new interests or ambitions? Many? .....; few?.....; none?.....;
   (3) Has it developed in you new abilities or skills: Many? .....; few?.....; none?.....;
   (4) Has the course changed your thinking, points of view, attitudes: Much?.....; little?.....; none?.....;
   (5) Is this course, for you, a required course: Yes.....; No.....;
   (6) Have you any additional comments?.....
5. Student's estimate of his own comprehension of course (check):
   (1) Very thorough and complete?.....
   (2) Reasonably thorough and complete?.....
   (3) Rather vague or incomplete?.....
   (4) Little or no comprehension?.....
6. Presentation of course:
   (1) Is the subject matter as presented coherent and understandable?
      (a) for the course as a whole: Markedly so? .....
      Passably so?.....
      Markedly not so?.....
      (b) for individual lessons: Markedly so? .....
      Passably so?.....
      Markedly not so?.....
   (2) Extent to which instructor impresses you as being at home in his field, a master of his subject?
      Thorough mastery?.....; average mastery?.....; Poor mastery?.....
   (3) Instructor's attitude toward students (check terms that best describe; add terms if necessary).
      (a) Shows personal interest?.....
      (b) Indifferent?.....

(c) Cold, distant?.....
(d) Democratic?.....
(e) Courteous?.....
(f) Considerate?.....
(g) Patronizing?.....
(h) Sarcastic?.....
(i) Treats all alike?.....
(j) Has favorites?.....
(k) Bids for popularity?.....
(l) Domineering?.....
(m) Egotistical?.....
(n) Sympathetic?.....

(4) Check term best describing instructor's method of assigning lessons:
(a) I know at all times what I am expected to do.....
(b) I am frequently uncertain as to what is expected .....
(c) I never know just what I have to do.....

(5) Taken as a whole and compared with other courses you have taken or are taking in college, how valuable do you consider this course?
Well above average?.....; above average?.....;
Average?.....; below average?.....

(6) Taken as a whole and compared with other courses you have taken or are taking in college, how well do you like this course?
Well above average?.....; above average?.....;
Average?.....; below average?.....;

(7) Add here your own statement of (1) weak points and (2) strong points in the course or its presentation not already mentioned.

(8) Effectiveness of instructor's presentation of course:
a. Presentation of subject matter:
(1) clear....., confused....., poor.....;

(2) sticks to subject matter:
well....., fairly....., poorly.....;

b. Personal effectiveness of instructor:

(1) evidence of instructor's interest or enthusiasm in course:
marked....., medium....., lacking.....

(2) evidences of intellectual culture: shown in references to literature, science, history, etc.
marked....., medium....., lacking.....

(3) evidences of social culture (ease, poise, courtesy, good form):
marked....., medium....., lacking.....

(4) personality:
effective....., medium....., lacking.....

(5) sense of humor:
marked....., medium....., lacking.....

(6) evidences of being at home in the field:
marked....., medium....., lacking.....

(7) method of assigning lessons:
clear and explicit....., indefinite.....

(8) examinations:
too easy....., too hard....., difficulty about right.....
too long....., length about right.....
too detailed....., too general,..... about right.....
questions clear....., ambiguous.....
grading fair....., too low....., too high.....

(9) List by *name* all the courses you are taking this semester. Place a figure 1 before the course on which you spend the most time per week in classroom and in preparation, a figure 2 before the course which takes next to the most time and other numbers in order for all your courses.

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INDEX

Admission, 27, 28; requirements, 54f.; high school scholarship, 54, 55; units of credit, 55; application blanks, 55; conditions allowed, 55; tests, 55; individual consideration, 56; age limit, 56; rating scales, 58; blanks, 65; procedure, 65f.
Advisors, freshman, 69; faculty, 69, 82f.; senior, 79; Big Sister, 79; dormitory, 79f.; deans, 86; personnel staff, 86f.
Age in relation to scholarship, 141, 150
Analysis of Classes of 1923 and 1925, 41f.

Cattell, 3
Clark, 169
College factors in relation to scholarship, 155f.
Columbia University, 4
Coördination of information concerning the student, 72f.; through cumulative records, 72f.; necessity for, 72; value of, 73; personnel service and research, 77f.
Counseling, 12; faculty advisors, 69, 82f.; by seniors, 79; Big Sisters, 79; dormitory counselors, 79f.; insufficient or incorrect academic, 83f.; deans, 86; personnel staff, 86f.; of personnel department, 87; staff, 87; scope of, 87; program of, 88
Cumulative records, 73f.; American Council cumulative record card, 74, 215; record folder, 89, 91

Deans, 12, 18; of women, 31
Director of personnel, authority of, 19; qualifications and duties of, 209f.

Extra-curriculum activities, method of keeping records of, 74f.; in relation to scholarship, 157, 158

Faculty advisors, 13
Faculty members, selection of, 201
Family factors in relation to scholarship, 153
"Fourth-quarter" students, 44
Fraternities and sororities, information about members of, 74, 75; in relation to student "mortality," 63
Freshman problem, 10
Freshman Week, 68f.; value of, 70f.
Furtherance-hindrance factors in relation to scholarship, 157f.

Grades, study of, 182f.; in commerce and liberal arts, 182; in major subjects, 185f.; of freshmen, sophomores, juniors, and seniors, 185; men's and women's, 186
Grading system, 47

Handicaps, study of scholastic, 159f.
Harper, 4
Health, 11, 94; organization of Health Committee, 122; in relation to scholarship, 157

High school and college scholastic standing, relationship between, 44f., 152, 153
High school factors in relation to scholarship, 154f.

Interview, 84f.; scope of, 84; conducted by, 84; program of, 88; description of method in survey type, 89f.; criteria for successful, 96; examples of difficulties discovered in, 96f.; scheduled and survey versus voluntary, 106; policies regarding, 107; value of, 107; health, 123; objectivity of, 178
Interviewers' estimates, value of, 179

Jones, 153

Kitson, 4, 6

"Majors," 185f.
Marshall, 6
Mental alertness in relation to scholarship, 141, 150f., 152, 165f.
Mental hygiene, 14, 94, 95, 122f., 123f.; lectures on, 123; in the interview, 123, 124; examples of mental hygiene cases, 124f.; supplementary readings in, 135, 136
"Mortality," rate, 33f., 44; causes of, 61f.
Motivation, 164f.

Orientation courses, 71
Outside work. *See* Self-support.

Part-time employment. *See* Self-support.
Personnel Department, place of, 208
Personnel office, organization of, 18; principles underlying, 19; internal organization of, 20; staff of, 21; scope of, 22; cost of, 23
Personnel work, definition of, v, 7, 207f.; progress in, vi; history of, 3; survey of, 7; coördination of, 10; agencies concerned in, 16; philosophy of, 207f.; methods of, 212
Placement, 14; survey of agencies, 115; centralization of agencies, 115, 116; policies underlying, 116; for certain groups of men, 119, 120; for women in college, 120, 121; part-time, 121
Pre-professional requirements, study of, 180
Pre-professional students, 40
Probation, average, and superior scholarship groups, 140f.
Problem cases, 94f.; examples of, 94f.; variety of, 106
Problems in personnel research, 213f.

Rating scales, 56, 169f., 170f.; of furtherance-hindrance factors affecting scholastic achievement, 89, 91, 92, 93
Records, 13; for information supplied preceptors, 79f.
Registration, 69
Religious agencies and activities, a survey of, 196f.
Research, 139f., 213f.

Scholarship in relation to, age, 56, 141, 150; mental alertness, 141, 150f.; parents' nationalities, 141, 153; parents' education, 142, 153; brothers and sisters, 142, 153; high school location, 143, 154; high school scholarship, 143, 144, 154; high school extra-curriculum activities, 144, 155; number of high schools attended, 144, 155; college residence, 145, 155; entrance conditions, 145, 156; colleges previously attended, 145, 156;

use of car, 145, 156; furtherance-hindrance factors, 146, 157; time distribution, 146f., 157f.; intercollegiate athletics, 146, 158; intra-mural athletics, 146, 158; exercise, 147, 158; extra-curriculum activities, 147, 157; social activities, 147; fraternity duties, 147; outside work for compensation, 148, 157, 159; sleep, 148, 158; meals, 148, 158; class and laboratory, 148; study, 148, 158; leisure and miscellaneous, 149; vocational preference, 149, 150, 159; various factors, 194f.
Scholarship of students from different high schools, 52f.
Schreurs, 194
Scott, 6
Sectioning, 194f.
Selection of faculty members, 201
Selection of students, 10, 27; general assumptions underlying, 29; use of tests in, 44, 47; criteria for, 44; use of high school scholarship records in, 44f.; use of critical scores in, 48, 54; use of tests in, 48, 49; use of high school standing in, 48, 49
Selective program, focus of, 40
Self-support, 14 131, 148, 157, 159, 163, 174f.
Self-surveys, 15, 180
Social adjustments, 94
Speech and liberal arts students, a comparison of, 190
Speech School students, 190f.
Stack, 196
Students, geographic distribution of, 30; registration analysis of, 31f.
Summer work, 91
Survey of psychology students, 192

Teaching, evaluation of, 204
Terman, 152
Testing program, 68f.; cost of, 69
Time distribution, 70, 91, 95, 146, 172, 190, 191
"Twenty-first" Club, 165

Vocational choices, 112f., 159
Vocational guidance, 109f.; definition of, 109
Vocational information, 109f.; need for, 109; through practitioners, 109; through vocational conferences, 110; from business concerns, 110; from outside vocational agencies, 110; through library, 110; through bulletin of pre-professional programs of study, 110; through organization of pre-professional groups, 111
Vocational objectives, 91
Vocational problem, 13
Vocational tests, 115

Wood, 152, 215

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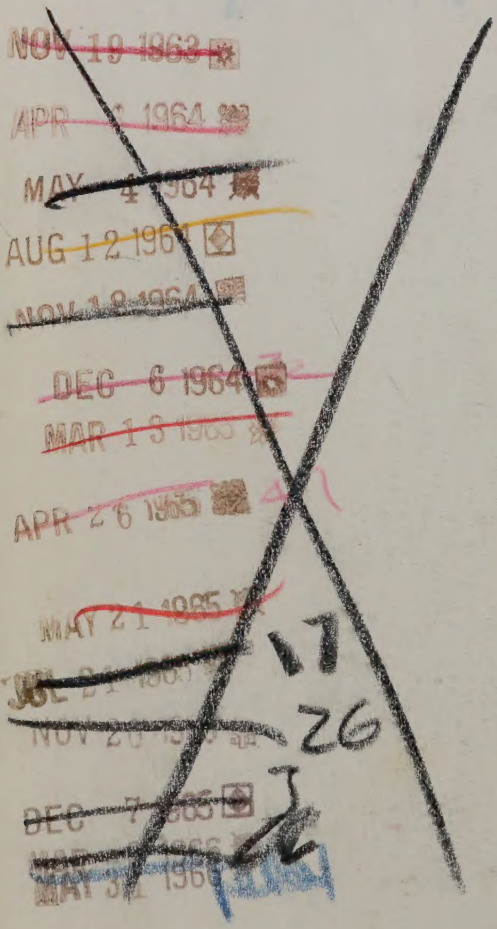

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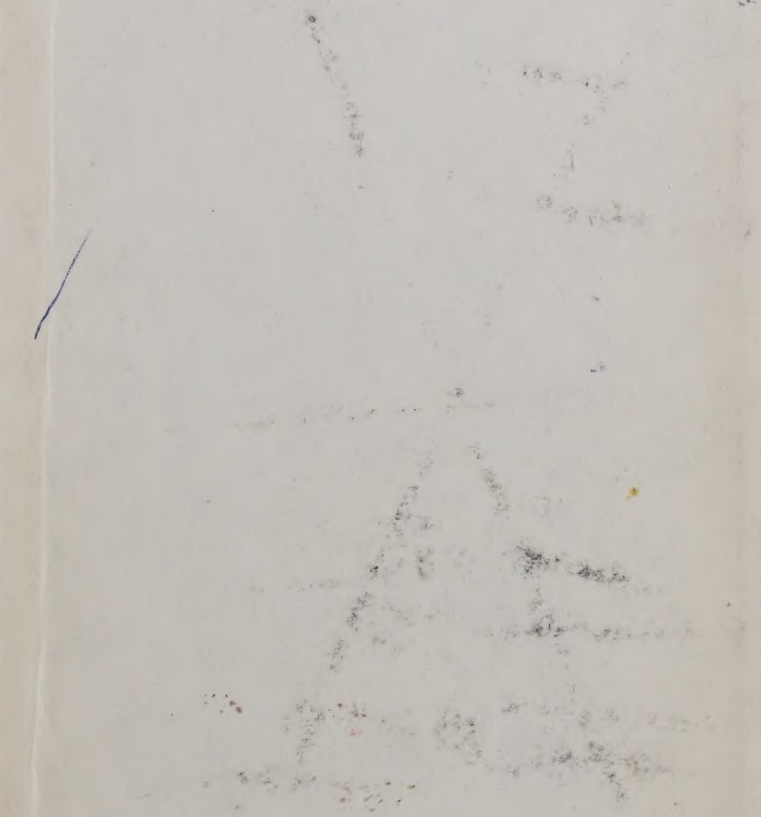

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